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ECONOMIC DISINCENTIVES FOR POLLUTION CONTROL: LEGAL, POLITICAL, AND ADMINISTRATIVE DIMENSIONS

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This report defines an economic disincentive as a monetary charge levied by government on conduct which is not illegal but which does impose social costs, for the principal purpose of discouraging the conduct. Disincentives are distinguished from other legal mechanisms which may have incidental economic disincentive effects, e.g., fines, user charges, and license fees. The constitutionality of federal or state imposition of disincentives is examined and the authority of the U.S. Environmental Protection Agency and the States to utilize disincentives under selected federal environmental statutes is analyzed. The legality of some disincentives adopted by states is discussed. The charges imposed by several European countries are described and distinguished from disincentives. The history of some previous proposals for federal disincentives is reviewed and suggestions for additional disincentives which might be feasible are offered.

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ABSTRACT

This report defines an economic disincentive as a monetary charge levied by government on conduct which is not illegal but which does impose social costs, for the principal purpose of discouraging the conduct. Disincentives are distinguished from other legal mechanisms which may have incidental economic disincentive effects, e.g., fines, user charges, and license fees. The constitutionality of federal or state imposition of disincentives is examined and the authority of the U.S. Environmental Protection Agency and the states to utilize disincentives under selected federal environmental statutes is analyzed. The legality of some disincentives adopted by states is discussed. The charges imposed by several European countries are described and distinguished from disincentives. The history of some previous proposals for federal disincentives is reviewed and suggestions for additional disincentives which might be feasible are offered.

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Appendix B: Rules Establishing Pollution Charges and Restating Permit Application Fees in Accord With Title 10, Vermont Statutes Annotated, Chapter 33, As Amended, Vermont Water Resources Board, State of Vermont, Agency 193

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of Environmental Conservation, June 29, 1972

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SECTION I

CONCLUSIONS AND RECOMMENDATION

CONCLUSIONS

1. An economic disincentive is properly defined as a monetary charge levied by government on conduct which is not illegal but which does impose social costs, for the purpose of discouraging the conduct. Disincentives should be distinguished from fines, civil penalties, forfeitures, bonds, user charges, license or permit fees, taxes, loans, grants, payments, tax expenditures, and contingency fees.

2. Neither pollution charges in Vermont nor surveillance fees in Michigan are properly characterized as disincentives, as defined above. Rather they are, respectively, fines and user charges.

3. The Congress may constitutionally enact laws providing for disincentives by exercising either its power to regulate commerce or its power to levy taxes. The Fifth Amendment due process guaranty and its requirement for compensation for taking of private property for public purposes would not significantly limit the exercise of these powers. The Fifth Amendment privilege against self-incrimination and the Fourth Amendment requirement for a warrant as the pre-requisite for a search may impose some limitations on how disincentives may be implemented. Congress may delegate legislative power to define the details of disincentive programs so long as it establishes standards for doing so.

4. States may exercise their police and taxing powers to enact laws providing for disincentives. The constitutional law of a particular state must be consulted for limitations on these powers in that state. The provisions of the Fourth and Fifth Amendments to the U.S. Constitution referred to in Conclusion number 3 apply to the states. The due process and equal protection clauses of the Fourteenth Amendment impose limits on the exercise of state powers analogous to those imposed on the Congress by the due process guaranty of the Fifth Amendment. States are precluded from exercising their regulatory and taxing powers in ways which unduly interfere with the exercise of the concurrent powers of Congress.

5. The Administrator of the Environmental Protection Agency has no authority under the provisions of the Federal Water Pollution Control Act Amendments of 1972 to adopt disincentives but States are not pre-empted from doing so.

6. The Administrator of the Environmental Protection Agency has authority under section 110 of the Clean Air Act to adopt disincentives other than parking surcharges if he finds them necessary components of state implementation plans to achieve ambient air quality standards. States are not pre-empted from adopting disincentives applicable to sources of air pollution other than new motor vehicles, aircraft or fuels.

7. The Administrator of the Environmental Protection Agency has authority under section 3(d)(1)(C) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, to adopt disincentives applicable to the use of pesticides classified for restricted use. He may also have authority to impose payment of disincentive charges as conditions of experimental use permits under section 5. States are not pre-empted from adopting disincentives applicable to pesticides classified either for general use or restricted use.

8. The Administrator of the Environmental Protection Agency may have authority under section 104(a) of the Marine Protection, Research, and Sanctuaries Act of 1972 to impose payment of disincentives as conditions of permits to dump material into ocean waters. Section 108 would authorize him to adopt regulations providing for disincentives applicable to ocean dumping. States are pre-empted from adopting disincentives applicable to ocean dumping.

9. The Administrator of the Environmental Protection Agency has no authority under the Solid Waste Disposal Act to adopt disincentives but states are not pre-empted from doing so.

10. The Administrator of the Environmental Protection Agency does not have authority under section 6 of the Noise Control Act of 1972 to adopt regulations imposing disincentives on products which are major sources of noise but may adopt regulations under sections 17 and 18 imposing disincentives to control noise from interstate rail and motor carriers. States are not pre-empted from adopting disincentives applicable to use of new products covered by federal noise emission limits. As to rail or motor carriers states may adopt use limitations or disincentives only if approved by the Administrator of the Environmental Protection Agency. States or their subdivisions may impose disincentives on the noise from flights into airports they own.

11. The Oregon and Vermont laws imposing mandatory deposits on non-returnable beverage containers are constitutional.

12. The City of New York ordinance levying a tax based on levels of cigarette tar and nicotine content and requiring the tax differentials to be reflected in retail prices is constitutional.

13. The City of New York tax on sales of plastic containers but not on other containers has been declared illegal and unconstitutional by the New York State Supreme Court.

14. The Vermont tax on capital gains from speculative land sales is constitutional.

15. The charges imposed on discharges of wastewaters and emissions of air pollutants in the German Democratic Republic, Hungary, Czechoslovakia, France, The Netherlands, and the Land (cf. State) of Northrhine-Westphalia in the Federal Republic of Germany are more analogous to fines or user charges than to disincentives.

16. Enforcement of federal and state pollution control laws prior to 1970 was uneven. Economic disincentives or charge systems are seen by some as more effective and more economically efficient approaches to environmental quality management than previous and existing federal approaches. The political dimensions and general strengths and limitations of charge systems as alternatives or supplements to existing regulations are explored in analyses of recent proposals for sulfur taxes, parking surcharges, and lead additive taxes. In weighing the desirability of disincentive systems, consideration must be given to the scope and level of the charge, the nature of business response, and the administrative burden imposed on government and on those subject to charges.

17. Proposals for national sulfur emission taxes produced conflict over the scope and level of such taxes. Concern was expressed as well over both their industry-specific and regional impact. The administration could not find Republican sponsors for its proposals. All bills establishing sulfur emission taxes died, without hearings being held, in the House Ways and Means Committee. The proposed sulfur emission taxes were designed to spur industry development of sulfur emission control technology. EPA contends that the utility industry does not appear to have made a serious commitment to development of such technology.

18. The tax on lead additives was proposed by the administration as a means of increasing demand for lead-free fuels, thereby providing an incentive to gasoline manufacturers to enlarge

refining capacity for production of such fuels. The House Ways and Means Committee held hearings on the proposal and failed to report it. Little outside support was obtained for it and industry voiced considerable opposition on economic grounds.

19. Parking surcharges were proposed by EPA as part of state transportation control plans. Its actions were highly controversial and resulted in congressional action forbidding EPA from requiring parking surcharges as part of state transportation control plans.

20. At this time, it is unclear whether the existing, complex regulatory system established by the Federal Water Pollution Control Act Amendments of 1972 is going to succeed or whether it is going to founder under a deluge of litigation, missed deadlines and unsatisfied unrealistic expectations. States may question the feasibility of adopting disincentives given the present difficulties of statutory implementation and charges' potential for overburdening municipalities and industries.

21. Charges (such as sulfur emissions charges) other than parking surcharges could be used as a supplementary means of encouraging compliance with the deadlines established for state implementation plans under section 110 of the Clean Air Act.

22. Pollution charges might be desirable as supplements to new source controls under the Clean Air Act so as to prevent significant air quality deterioration while encouraging considerable industrial development in regions with relatively clean air. On the other hand, if the Clean Air Act permits no significant air quality deterioration to occur, then a ceiling or quota for emissions would have to be imposed on individual dischargers and there would be no need for pollution charges.

23. The structure of hazardous emission regulation under section 112 of the Clean Air Act does not lend itself to inclusion of supplementary disincentive devices.

24. It may be feasible to incorporate disincentives into the regulatory scheme for restricted use of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act.

25. Criteria used in evaluating applications for ocean dumping permits might serve as the basis for establishing ocean dumping disincentive charge rates. However, these criteria could be improved and there is still much to be learned about

the effects of ocean dumping.

26. The decibel A-scale (dB(A)) is a commonly accepted indicator of sound levels. Many municipalities presently have ordinances prohibiting noises in excess of specified decibel readings. This approach might serve as the point of departure for federal or state or local regulation of noise by imposing disincentives on noise emissions.

RECOMMENDATION

1. The Environmental Protection Agency should consider adopting disincentives as supplementary means of control under the Clean Air Act, the Federal Insecticide, Fungicide and Rodenticide Act, the Marine Protection, Research, and Sanctuaries Act of 1972 and the Noise Control Act of 1972 (see conclusions 6-8 and 10). States should consider adopting disincentives as supplementary means of control under the statutes enumerated above (with the exception of the Marine Protection, Research and Sanctuaries Act of 1972) where not precluded from doing so by federal preemption, and under the Federal Water Pollution Control Act Amendments of 1972 and the Solid Waste Disposal Act.

SECTION II

A DEFINITION OF DISINCENTIVE

At the outset, this report should set forth its authors' definition of a disincentive and distinguish a disincentive from several mechanisms (e.g., fines, user charges, license fees) commonly employed by legislatures to encourage or regulate or sanction certain conduct. A disincentive is a monetary charge levied by government on conduct which is not illegal but which does impose social costs, for the principal purpose of discouraging the conduct. The mechanism which is employed may be called a charge, a tax, or a fee, but if its principal purpose is to discourage the conduct it applies to (rather than to compensate the public for the use of public resources or to raise revenues or to punish illegal conduct) then it may properly be characterized as a disincentive.

This report confines itself to disincentives. Similar devices are often discussed in the literature of economics, (e.g., proposals for effluent charges), where they are justified theoretically as promoting internalization of social costs and proper allocation of resources. In the next section Vermont pollution charges and Michigan surveillance fees, which are often mentioned as "effluent charges", are described and distinguished from disincentives, but first the following mechanisms are distinguished. These mechanisms are not disincentives because their purpose is not usually to discourage conduct.

1. Fines: The most common sanction for violating a law or regulation is payment of an amount of money determined, after a trial or hearing, on the basis of the seriousness of the infraction. Fines may be imposed for committing a misdemeanor or felony, i.e., for being convicted of violating a provision of law which states it is a crime to behave in ways it proscribes, or they may be imposed as so-called "civil money penalties" for behavior which is not defined as criminal but which is nevertheless deemed illegal. The distinctions between fines and civil money penalties are not important here. What is important is the distinction between both of them and disincentives: both are imposed as the result of a judicial or quasi-judicial determination that a violation of law has occurred. Examples of fines and civil money penalties are those[1] providing for fines of $2,500-$25,000 for willful or negligent violations of several

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[1] See 33 U.S.C. §1319(c) and (d).

provisions of the Federal Water Pollution Control Act Amendments of 1972 and civil penalties of up to $10,000 for the same violations.

2. Forfeitures: Like fines or civil money penalties, forfeiture provisions come into play for violations of laws and, also like them, they provide an incentive not to misbehave because they pose the risk of governmental deprivation of valuable property if the violation is discovered. The Marine Mammal Protection Act of 1972[2] for example, provides that "any vessel ... employed in any manner in the unlawful taking of any marine mammal shall have its entire cargo or the monetary value thereof subject to seizure and forfeiture." Cancellation of mineral leases for mining of oil, gas, suphur, or other minerals for failure to comply with the provisions of the Outer Continental Shelf Lands Act[3] or of leases or permits authorizing the grazing of domestic livestock on federal lands for violating prohibitions on taking American or golden eagles[4] are analogous to forfeiture provisions.

3. User Charges: User charges[5] are paid by those who use or otherwise derive a benefit from a service or facility which is provided in whole or in part at public expense. These charges are in the nature of compensation — fees to help defray the costs of construction and maintenance of highways, airports, sewage treatment plants, parks, parking spaces, etc. Such fees may be based on a variety of reason-

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[2] 16 U.S.C. §1376.

[3] 43 U.S.C. §1334(b).

[4] 16 U.S.C. §668(c).

[5] Examples of user charge provisions may be found in: 1) 49 U.S.C. §1718(8): airport owners must "maintain a fee and rental structure for the facilities and services being provided the airport users which will make the airport as self-sustaining as possible" in order to gain approval of an airport development project by the Secretary of Transportation 2) 16 U.S.C. §460k-3: the Secretary of Interior may establish charges for public use of national wildlife refuges, game ranges, national fish hatcheries and other conservation areas administered by the Department of the Interior; 3) 43 U.S.C. §315b, establishes annual fees for participating in the use of grazing districts on U.S. public lands; and (4) 33 U.S.C. §1284(b): prohibition on EPA approval of a construction grant to a municipality unless the municipality has adopted or will adopt a system of charges to assure that each recipient of waste treatment services will pay its proportional share of the costs of operation and maintenance (including replacement) of any waste treatment services provided by the municipality.

able measures of actual use of the facilities or they may be flat fees for the privilége of use without regard to amount or extent of that use so long as the fees are not excessive in relation to costs incurred. Sometimes the fee structures provide for a surcharge on industrial discharges whose strength exceeds that of normal domestic sewage. While these surcharges have been studied for indications of whether they encourage change in dischargers' behavior[6] they are

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As a result of this requirement, added by the FWPCA 1972 amendments, many cities are adopting surcharge provisions as described above, and the field is generally in flux.

[6] "James A. Johnson, Associate Professor of Economics at McMaster University in Ontario, summarized the results of a survey he had conducted of municipal treatment systems in all American cities of more than 10,000 population and in 1,000 towns of lesser population. Of the respondents, 86% had user chargers, but the majority of these were based solely on water use without regard to waste production. As of 1970, approximately 400 municipalities were empowered to surcharge for industrial wastes exceeding specified limits of concentration of BOD and suspended solids. Of the respondent municipalities having surcharge systems, nearly 200 collected no revenue from this source, either because no industry exceeded the prescribed limits or because the municipality chose not to exercise its surcharging power. Only a few charged for all the BOD and SS deposited into municipal sewers. In many, the limit was defined in terms of the strength of normal sewage but in others it was set well above this level (ranging from 250 to over 1,000 parts per million, with most municipalities concentrated in the 300-500 range). Surcharges were usually set so as to recover the additional cost of treating wastes with above "normal" concentrations of pollutants. The rates varied from 1 cent to 3 cents per pound of BOD and SS in most cities; rates of up to 8 cents were found in a few that wished to encourage industries to cut back their waste production. From operating surcharge systems, annual revenues varied from less than $100 to approximately $500,000 in large cities like Cincinatti. Surcharge revenues were usually less than 5% and very rarely more than 10% of a city's total sewerage revenue. From these data, it seemed clear that many municipalities were not yet in a position to comply with the new cost-sharing requirements.

"Dr. Johnson had gained some general impressions of the responses of industry to these surcharges. Normally, firms reduced their wastes significantly while the surcharge was being considered and in the early stages of its implementation. Reductions had been greatest in comparatively small cities where the chief "offender" was a food or beverage industry. However, after the surcharge had been in effect for a few months, further waste reductions occurred slowly, if at all. The reasons appeared to be twofold: rates set primarily based on a rough approximation of the increased costs of treating such stronger wastes rather than on a legislative design to discourage the discharges.

4. License Fees: These fees are analogous to user charges, discussed immediately above, in that they are levied as a means of funding public programs regulating the licensed activity and of compensating for the public resources the activity uses or affects. Such fees must generally bear a reasonable relation to the costs of administering the program, although in some instances they may be based also on social costs or on the potential that the activity may become a nuisance. Many fees relate to management of natural resources, e.g.: 1) fees for hunting and fishing licenses,[7] fees for permits to hunt and fish on military reservations, to be used for protection, conservation and management of fish and wildlife; and fees for migratory bird hunting stamps, based on, among other things, the increased cost of lands needed for conservation of migratory birds, paid into the Migratory Bird Conservation Fund for printing the stamps, acquiring refuges and wetlands;[8] 2) fees for transferring oil from ship to shore payable to a special fund maintained for use in defraying clean-up costs for waters and shorelands damaged by oil spills,[9]

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only high enough to recover costs of treatment were too low to provide a continuing incentive, and industrial influents were not sampled often enough. Frequent testing, however, might cost nearly as much as the revenue obtained from the surcharge, especially for small industries. [Approximately 78% of the cities placed the average cost of testing a firm's effluent at $100 or less, but 6% placed it over $500. This large discrepancy resulted from differences in waste mix, in the number of samples taken, in the periods over which they were taken, and in methods of costing the tests.]" Edward I. Selig, Effluent Charges on Air and Water Pollution: A Conference Report (1973, Environmental Law Institute), 66-68. See also J.A. Johnson, "The Distribution of the Burden of Sewer User Charges Under Various Charge Formulas," 22 National Tax Journal 472 (1972); and Maystre and Geyer, "Charges for Treating Industrial Wastewater in Municipal Plants," December 1969 Journal of the Water Pollution Control Federation.

[7] 16 U.S.C. §670a.

[8] 16 U.S.C. §718.

[9] E.g., Town of Huntington, N.Y., Oil Spillage Ordinance, Chapter 60, sections 60-30 et. seq.; Maine Rev. Stat. Ann., Title 38, section 551; Annotated Code of Maryland, Art. 96A, section 29F(b).

3) fees for licenses to take shellfish,[10] 4) fees to engage in whaling,[11] 5) fees to remove sand, gravel, marl, shell, etc.,[12] and 6) royalties payable to the U.S. for oil, gas and sulfur produced under lease of Outer Continental Shelf lands[13] or other public lands.[14]

5. __Bonds__: Some laws provide that the recipient of a license to conduct an activity must bind himself to the state for the payment of money unless certain conditions are complied with thus rendering the obligation void. Ohio, for instance, requires applicants for licenses to conduct strip mining operations to post performance bonds for amounts which increase with the number of acres to be mined,[15] The bonds issued range from the minimum of $5,000 to over $5 million depending on the number of acres involved.

Such bonds, while they have the effect of encouraging satisfactory reclamation and mining procedures which facilitate this, are, like fines, incentives to comply with the requirements of the law rather than disincentives designed to discourage strip mining. In effect the fine for violation is put "up front" rather than being imposed as a result of a trial. (Determinations of unsatisfactory reclamation in Ohio may be appealed to a Reclamation Board of Review and a trial-like de novo administrative proceeding ensues.) A licensee found not in compliance with the provisions of §1513.16 forfeits a "penal sum" just as does one sentenced to pay a criminal fine.

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[10] E.g., from the Potomac River, section 4, Potomac River Compact of 1958, Pub. Law No. 87-783, 76 Stat. 797, and from Maryland waters, Art. 66C, section 698 of the Annotated Code of Maryland.

[11] 16 U.S.C. §916d.

[12] E.g., Article 4053, Vernon's Ann. P.C., State of Texas; Md., Art. 66C, section 302.

[13] 43 U.S.C. §133.

[14] 30 U.S.C. §191.

[15] Section 1513.08(A), Ohio Rev. Code. The bond form reads:

> X, as principal and Y (insurance company) as surety are held and firmly bound unto the State of Ohio in the penal sum of $___ for the payment of which sum, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns. The condition of the above obligation is such, that, whereas the above named applicant estimates that ___ acres of land will be affected by strip mining during the one year period following the beginning of the license issued pursuant to application number ___, now, if the said principal shall satisfactorily reclaim, as provided in Section 1513.16 of the Revised Code of Ohio, all lands affected by strip mining by said principal within the State of Ohio within the period of one year following the date of beginning of the license issued pursuant to the aforesaid application, then this obligation shall be void; otherwise it shall remain in full force and effect.

In addition to such reclamation bonds, Maryland's strip mining law calls for a $400 per acre bond to be posted and liability under the bond endures for the life of the mining operation and five years thereafter.[16] Maryland also has a bond requirement for shippers of oil: they must post a bond in an amount dependent on the tonnage of the vessel, which bond is forfeited if there is a spill.[17]

One of the provisions of Title 18 governing crime and criminal procedure authorizes the Secretary of the Treasury to "require the furnishing of an appropriate bond when desirable to insure compliance with" provisions prohibiting importation, shipment or possession of various kinds of wild animals, birds and fish prescribed by Secretary of Interior regulations as injurious to humans, agriculture, forestry, horticulture, or wildlife.[18]

Act 136 of the State of Michigan's Public Acts of 1969 provides that before engaging in the business of removing liquid industrial wastes from the premises of another, a person must obtain a license and submit with the application for the license a surety bond of $15,000 for residents and $30,000 for non-residents. The water resources commission is the obligee,

> and the bond shall be for the benefit and purpose to indemnify the state for the elimination of hazardous or nuisance conditions and for the abatement of any pollution of waters which results from the improper disposal of industrial waste by the licensee.

6. Loans: Government loans to persons, businesses, or governmental agencies to encourage or facilitate action the government wishes to subsidize are the converse of disincentives -- payments exacted as a means of discouraging unwanted conduct. For example, the Secretary of Agriculture is authorized to make loans or advancements to local organizations or State and local agencies to finance the local share of costs of carrying out works of improvement for flood prevention, conservation, development, utilization and disposal of water; or conservation and proper utilization of land in small water sheds.[19]

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[16] Ann. Code of Maryland, Art. 66C, sections 663, 667.

[17] Ann. Code of Maryland, Art. 96A, §29AB(a).

[18] 18 U.S.C. §42(a)(5).

[19] 16 U.S.C. 1006a.

The Secretary of Commerce may make loans to States or organizations to assist in financing the purchase or development of land and improvements for public works, public service and development facility usage and to aid in financing any project within a redevelopment area for the purchase or development of land and facilities (including machinery and equipment) for industrial or commercial use under the Public Works and Economic Development Act of 1965.[20] The Small Business Administration makes loans to industry for pollution abatement investments.[21]

7. Payments: Like loans, payments are the converse of disincentives. The Water Bank Act authorizes the Secretary of Agriculture to make annual payments to landowners and operators in return for their agreement to undertake obligations for the conservation of water on specified land in important migratory water fowl nesting and breeding areas. The payments are to be fair and reasonable in consideration of the obligations undertaken by the owner.[22]

8. Grants: Grants from one level of government to another for construction of public facilities or operation and maintenance of programs or facilities are prevalent means for encouraging these activities by lightening the local financial burden. They are a form of subsidy to induce behavior rather than a levy to discourage it. Examples are: 1) federal and state grants to municipalities for the construction of wastewater treatment facilities,[23] 2) federal grants to states or their subdivisions for acquisition or development of land and improvements for public works;[24] and 3) federal funding of various kinds of highway systems.[25] Grants are also made to fund demonstrations, training and planning in certain fields.[26]

9. Taxes: Taxes have as their principal purpose the raising of general revenue. They may incidentally more or less discourage the business or behavior subject to the tax but they usually are not

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[20] 42 U.S.C. §§3141, 3142.

[21] 16 U.S.C. §1304.

[22] 16 U.S.C. §1304.

[23] Authorized, for example, by 33 U.S.C. §1281(g), and analogous provisions of state law.

[24] 42 U.S.C. §3131.

[25] 23 U.S.C. §103.

[26] E.g., solid waste management under 42 U.S.C. §325a, b and d of the Solid Waste Disposal Act.

designed to do so as disincentives are. For example, in 1969 Pittsburgh placed a 20 per cent tax on the gross receipts of all transactions involving the parking of automobiles at non-residential places in return for a fee.[27] As of April 1, 1973, the tax took the form of a 20 per cent tax on the fees paid for parking and is collected by the operator from the patron. Although an effect of the higher parking rates resulting from this tax may be that more persons will use public rather than private transportation (and thus reduce the demand for parking services) the ordinance provides that its purpose is "to provide for the general revenue by imposing a tax." The reasons for taxing parking garages specially were recited in the ordinance:

> ...non-residential parking places for motor vehicles, by reason of the frequency rate of their use, the changing intensity of their use at various hours of the day, their location, their relationship to traffic congestion and other characteristics, present problems requiring municipal services and affect the public interest, differently from parking places accessory to the use and occupancy of residences.[28]

As the U.S. Supreme Court has recently said, by enacting the tax Pittsburgh "insisted that those providing and utilizing non-residential parking facilities should pay more taxes to compensate the city for the problems incident to offstreet parking."[29]

Occasionally the intent of a tax measure is as much to guide behavior as it is to raise revenue. Examples from New York and Vermont are described in section V. In general, however, taxes are to be distinguished from disincentives as having primarily revenue-generating functions.

10. Tax Expenditures: There are several provisions of the Internal Revenue Code which are tantamount to government loans or disbursements. 1) Persons are authorized to claim deductions for amortization over a five year period of water and air pollution control facilities;[30] 2) gross income from mines, oil and gas wells, other natural deposits and timber is subject to a deduction of from five to twenty-two per cent (as depletion allowances) for purposes of figuring taxable income,[31] 3) expenses for exploring for minerals may be

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[27] City of Pittsburgh, Ordinance No. 704.

[28] *Id.*

[29] *City of Pittsburgh v. Alco Parking Corporation,* 42 U.S. Law Week 4874 at 4877 (June 10, 1974).

[30] 26 U.S.C. §169.

[31] 26 U.S.C. §§611, 613.

deducted for purposes of figuring taxable income.[32] These tax provisions are defended, if not intended, as inducing action in the national interest in response to the monetary benefits conferred.[33] They are in effect subsidies like grants or loans, discussed above.

11. Contingency Fees: These fees were proposed by the Atomic Energy Commission staff early in 1972 in connection with proposed alternative amendments extending the Price-Anderson Act,[34] which limits liability for nuclear powerplant accidents. Under present law, there is an upper limit of $560 million on damage claims, with the Federal Government indemnifying all losses between the operator's maximum insurance benefits (usually about $125 million) and this statutory ceiling. Had contingency fees been adopted, they would have been assessed on all nuclear powerplant and reprocessing plant licenses granted on or after August 1, 1977. No money would actually pass to the Federal Treasury until a reimbursible accident, triggering Federal outlays for damage claims, occurred. The Senate, however, has just adopted a compromise five-year Price-Anderson extension, which makes no provision for contingency fees. In their stead, the bill sanctions the 'retroactive premium' concept, whereby utilities would be covered by a double layer of insurance. The basic layer consists of about $125 million per utility, purchased as now with frequent premiums. The secondary layer would cover all reimbursements which a utility had to pay to the Federal Government in the event of a major nuclear accident, and premiums for that coverage would be paid retroactively as the need arose. The $560 million ceiling is retained. Fees (or retroactive premiums) such as those proposed, which spread the burden of a nuclear accident across the entire industry, are not a disincentive because they would not discourage an undesired course of conduct, or compel safety measures otherwise not likely to be taken. In fact, it can be argued that the risk-sharing and limitation of liability embodied in contingency fees undercut whatever deterrent effect arises from a private company's exposure to the possibility of immense personal injury recoveries. Even less would fees operate as a disincentive, if, as hinted by the Agency, these paper liabilities were treated as tax deductible or allowed as a portion of a utility's ratebase.

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[32] 26 U.S.C. §615.

[33] Surrey, "Tax Incentives as a Device for Implementing Government Policy: A Comparison with Direct Government Expenditures," 83 Harv. L. Rev., 705, 711 (1970).

[34] 42 U.S.C. 2210 et. seq.

SECTION III

VERMONT POLLUTION CHARGES AND MICHIGAN SURVEILLANCE FEES: MYTHICAL DISINCENTIVES

INTRODUCTION

To illustrate the distinctions between disincentives and other mechanisms set forth in the preceding section and to dispel the popular notion that disincentives are actually imposed in Vermont and Michigan, this section describes the pollution charges in Vermont and the surveillance fees in Michigan.

POLLUTION CHARGES IN VERMONT

In 1970 Vermont enacted a law which authorized and directed the administrative adoption and assessment of "pollution charges," commencing at a later date. They were intended to establish some semblance of equity between those dischargers who incurred the costs of adequately treating their wastes prior to discharge and those dischargers who previously had the economic advantage of being allowed the free use of the public waters as a place for the disposal of untreated or inadequately treated wastes. The charges were also intended to encourage polluters to adopt interim abatement measures during the period in which they were legally allowed to pollute. The pollution charges envisioned by the 1970 Act were but one integral part of a substantial revision of Vermont's water pollution statutes designed to introduce a comprehensive system of water pollution control which would integrate with and implement the Federal Water Pollution Control Act.[1]

The law imposed a requirement that all dischargers of wastes directly or indirectly into the waters of the state obtain a permit from the Department of Water Resources by July 1, 1971. The law attempted to discriminate between "polluters" and "non-polluters" by creating two types of permits. The first permit was denominated a "discharge permit" and could be issued by the Department to those dischargers whose wastes did not reduce the quality of the receiving waters below the standard required by the applicable classification and water quality criteria. The second permit was denominated a "pollution permit." It could be issued by the Department to those dischargers who did not quality for a "discharge permit" but who were taking the necessary steps in order to be able to qualify for a discharge permit, i.e. a polluter who needed time to install treatment measures. The Department had to make an affirmative finding on seven criteria before it could issue a "pollution permit." Furthermore, any "pollution permit" issued was for a fixed term, non-renewable and had to contain several terms and conditions among which was the condition requiring payment of periodic pollution charges in accordance with pollution charge rates established by the water resources board pursuant to subsection (e) of section 912a. Subsection (e) was the key provision which authorized and directed the board to establish the pollution charge rates and, because of its significance in relation to the original concept of pollution charges under this act, it is set forth in its entirety:

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[1] Act No. 252 of the Adjourned Session of the 1969 Vermont General Assembly, approved on April 4, 1970.

> (e) Pollution charges: By January 1, 1971 the board shall fix and establish reasonable and just pollution charge rates for computing the amounts to be paid by temporary pollution permit holders pursuant to subsection (d) of this section. The board is authorized to revise such charge rates from time to time thereafter.
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> (1) Purpose: It is expressly recognized that the authorized discharge of certain wastes which will reduce the quality of receiving waters below the established classifications represents an expropriation of a valuable public natural resource for private or limited use and that such discharges are permitted under this subchapter for economic reasons in the public interest of providing time during which the degrading effects of such discharges can be abated. The imposition of pollution charges shall have the principal purpose of providing the economic incentive for temporary pollution permit holders to reduce the volume and degrading quality of their discharges during the limited period when such discharges are authorized, thereby raising the quality of the waters in the state. Such charges shall be for the further purpose of protecting the health, welfare and safety of the general public, protecting, preserving and benefiting navigation upon the waters of the state and protecting the general public interest in such waters including recreational and aesthetic interest. The charges are not imposed for revenue purposes and any income received by the state under this section shall be used solely for purposes of water quality management and pollution control.
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> (2) How established: A pollution charge is the price to be paid per unit of waste discharged into waters of the state. The charge may vary among different types of classes of wastes to account for variations in the degrading effects of various wastes. The charges may also vary to account for variations in the water quality standards of different classes and the hydrologic conditions of different receiving waters. In establishing the charges the board shall attempt to approxi-

> mate in economic terms the damage done to other users of the waters, both private users and the general public, caused by the degrading effect of various types of waste in varying volumes and frequencies of discharge upon water qualities of the different classes of waters. In determining relative degrading effect the board may employ any scientific or technical criteria or parameters such as biochemical oxygen demand and suspended solids and may express the unit charge in terms of such standards of measurement.

It should be emphasized that section 912a(e)(2) only authorizes unit charges, i.e., "the price to be paid per unit of waste discharged into waters of the state." As passed by the House of Representatives the bill which became Act No. 252 included the following language in section 912a(e)(2): "The Board may establish a different method for computing the degrading effects of the discharge of waste from municipal facilities based upon the amortized capital, operational and maintenance expense of the pollution abatement facility or alternate waste disposal system contemplated in the application for the permit."[2] This language was deleted from the bill by the Senate upon the recommendation of Senator Arthur Jones, chairman of the Senate Natural Resources Committee.[3] This recommendation was based on the Committee's consideration of a conclusion reached by Silas Robert Lyman in an LL.M. thesis that "if the effluent charge is computed upon the basis of the dischargers' costs of treatment and reduction, rather than cost of downstream damages, the charge will probably be held unconstitutional because of the obvious and unreasonable discrimination implicit in the method of its assessment."[4]

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[2] Journal of the Vermont House of Representatives, March 26, 1970, pp. 496-498; Calendar of the Vermont Senate, March 27, 1970, pp. 488-490.

[3] Journal of the Vermont Senate, March 3 , 1970, 441-442.

[4] Silas Robert Lyman, "The Constitutionality of Effluent Charges," Technical Report OWRR A-022-Wis., May 1969, the University of Wisconsin Water Resources Center, p. 198. "This would be true," Lyman continued:

> whether or not this charge was considered a regulatory measure, or a tax measure, because the classifications and rates created thereby would be unreasonable, and because all of the persons within a class, waste dischargers similarly situated on a water course, discharging similar qualities and quantities of waste, are not treated equally. Under these circumstances, this method of computing the effluent charge would not afford equal protection of the law or due process, and would therefore be unconstitutional.

Lyman's conclusion has since been challenged by Professor Peter N. Davis.[5]

Vermont's Department of Water Resources obtained a demonstration grant from the Federal Water Quality Administration and contracted with Arthur D. Little, Inc. to assist it in preparing the regulations required by section 912a(e). The contractor's interim report described alternative methods of implementing charges and evaluated them on the basis of several criteria.[6] The contractor's personnel recommended annualized cost of treatment as the easiest and most efficient method to follow and the Department, which had advocated this method before the legislature, readily concurred. In making its recommendation, the contractor concluded both that this method would be constitutional[7] and would be in accordance with the requirements of the Vermont law.[8]

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[5] Peter N. Davis, "Institutional Design for Water Quality Management: A Case Study of the Wisconsin River," vol. VII, section I, Five Legal Studies on Water Quality Management in Wisconsin, 1970, Technical Research Project Completion Report, Title II-C-1228, p. 179:

> The most important conclusion Lyman reached was that an effluent charge system based on costs of waste treatment would be unconstitutional. He feels such a basis for calculating effluent charges would involve "obvious and unreasonable discrimination implicit in the method of its assessment... because the classifications and rates created thereby would be unreasonable, and because all of the persons within a class, waste dischargers similarly situated on a water course, discharging similar quality and quantities of waste are not treated equally."
>
> The basis for that assertion is his interpretation of an effluent charge system based on treatment costs. He presumes that waste dischargers would be assessed charges on units of raw waste produced, although the amount those same dischargers introduced into the watercourse per unit volume of raw waste produced may vary greatly as a result of treatment.
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> Of course, if an effluent charge system were set up that way, his conclusion would probably be correct. But all effluent charge systems based on treatment costs proposed so far are grounded on units of waste loadings introduced into the watercourse, or on units of raw waste produced coupled with reimbursement or credit for treatment costs. In either of those situations, there would be no unequal treatment of dischargers in equivalent situations.
>
> Lyman's other conclusion was that an effluent charge system based on downstream damages would be constitutional. This conclusion seems to be correct.

The process of drafting these regulations was initiated in November 1970 by a committee composed of personnel from Arthur D. Little, Inc. and the Department of Water Resources and a representative of the Attorney General's office. This committee's first draft of regulations was sent to the Water Resources Board on November 20, 1970, along with a memorandum stating that an amendment to Act No. 252 would be required if the annualized cost of treatment method were to be employed.[9] It had been hoped that a set of proposed

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[6] Part IV, "Interim Report on Economic Incentives in Water-Quality Management: Alternative Effluent Charge Methods" to the Department of Water Resources, Agency of Environmental Conservation, State of Vermont, October 15, 1970, by Arthur D. Little, Inc.

[7] Id., pp. 104-114.

[8] "Final Report -- Phase I, Economic Incentives in Water Quality Management: The Application of Effluent Charges in a Permit-Charge System" to the Department of Water Resources, Agency of Environmental Conservation, State of Vermont, December 1970, by Arthur D. Little, Inc., pp. 53-56.

[9] This draft is summarized in Development of a State Effluent Charge System, by [the] Vermont Department of Water Resources, Agency of Environmental Conservation, State Office Building, Montpelier, Vermont 05602, for the Office of Research and Monitoring, Environmental Protection Agency, Project #16110 GNT, February 1972, at page 105 as follows:

> The initial (November) draft rules and regulation regarding the computation of pollution charges followed closely the recommendations of the consultants. Charges were based on the annualized cost of treatment to the discharger (i.e., federal and state subsidies were excluded to derive out-of-pocket cost) of constructing and operating the pollution abatement facilities required to modify the characteristics of his wastes to meet water quality standards. Charges were set equal to annualized out-of-pocket costs in the belief that such charges would retain the incentive to build the needed facilities without delay and that the incentive for short-term reductions in waste loadings could be provided by allowing adjustment in the charge

rules could be agreed upon quickly in order to enable prompt publication of proposed rules and a scheduling of the hearing required by the provisions of Vermont's administrative procedure act governing the adoption of rules. But, "as it turned out, greater time was required than anticipated to coordinate the various views of the Department and the Board. In addition, a legislatively prescribed administrative reorganization occurred in early 1971 which created a new Agency for [sic] Environmental Conservation and transferred the Department of Water Resources along with several others to the new Agency. These changes further complicated the task of preparing a set of proposed rules and regulations suitable for publication and public hearing."[10]

Over the course of the next three months more than two dozen drafts of proposed rules were prepared by various members of the Department, the Agency and the Board. Some of the drafts employed the annualized cost of treatment method, some the unit charge method, some attempted to combine the two approaches, and the later drafts incorporated provisions for credits, rebates, and deferred obligations. Finally, on March 31, 1971, the Board published a set of proposed rules and scheduled a hearing on them for April 21, 1971.[11] Shortly prior to

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rate to account for expenditures actually incurred and to account for alteration in the nature of the abatement facilities required as occasioned by product or process changes undertaken by the discharger.

[10] Id.

[11] See the March 31, 1971 and April 7, 1971 editions of the Brattleboro Daily Reformer, the Rutland Daily Herald, and the Burlington Free Press. These proposed rules are summarized as follows at pp. 105-107 of Development of a State Effluent Charge System, supra, note 9:

> "Subsequent [to the November draft, the] deliberations of the Agency and the Board concerning the charge schedule centered on the desirability of charging temporary pollution permit holders who comply with the terms of their permits the full annualized cost of treatment. There appeared to be no objection to charging the full rate to temporary permittees who failed to comply with construction timetables and other provisions of their permits, but it was felt that those complying with temporary pollution permits should pay less. Consequently, the Board approved on March 11, 1971, a set of proposed charges based on out-of-pocket cost of treatment but providing for rebates where there is compliance with the terms of a temporary pollution permit. In the case of domestic wastes, the Board's rules assumed an average cost for municipal plants of the size range common in Vermont and placed the charge on a per unit basis at $0.06-1/2 per pound of

the hearing date the General Assembly passed a bill which included a section postponing the date on which charges were to begin to

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BOD discharged plus $0.04-3/4 per pound of suspended solids discharged plus $0.02-1/2 per 1000 gallons of liquids requiring disinfection discharged. In deriving these figures it was also assumed that federal and state grants-in-aid would be applicable to the extent of 85% toward the capital cost of approved treatment facilities.

"In the case of non-domestic wastes, the Board's rules set the charges equal to the individual discharger's annualized cost of constructing and operating "the abatement facilities necessary to modify the characteristics of such water such that when these facilities are placed in operation the permittee will qualify for a discharge permit." The discharger's annual cost will be taken equal to the annual cost developed in the engineering design of the facilities to be installed, if the discharger has prepared such a design and the facilities are acceptable to the Agency. In the absence of definite and documented cost estimates relevant to the proposed facilities of the individual discharger, the Agency will estimate the cost, based on published generalized waste treatment costs relevant to that industry or activity.

"Since no federal or state grants-in-aid are available to these dischargers, provision was made for reduced payment in the amount of 15% of annualized capital cost plus delivery of a demand note for the balance of the annualized capital cost and full payment of operating costs so as "to place such payments on a parity with those made by a permittee whose charges are computed on a unit basis."

"In addition, the Board's proposed rules provided for rebates as set forth below:

> RULE 14: Pollution Charges, Rebate and Forfeiture
>
> a) The Department shall rebate to a temporary pollution permit holder two-thirds of the pollution charge payments actually collected in accord with RULE 13 at such time as the permittee qualifies for and receives from the Department a discharge permit provided the permittee has made all required payments and has qualified for and received a discharge permit prior to or on the date required by the schedule set forth in his temporary pollution permit. It shall also cancel and return all demand notes held at that time.

accrue from July 1, 1971, to July 1, 1972.[12] Although this relieved some of the pressure, most of the comments at the hearing on the proposed rules were negative. The day after the hearing the Board requested an Attorney General's opinion on whether the proposed rules conformed to the requirements of Act No. 252. On May 10, 1971, the Attorney General's office issued an opinion that they did not conform because 1) the rules employed the annualized cost of treatment method for which authorization had been deleted from the bill (and which had not been authorized by obtaining an amendment as suggested in November 1970) and 2) the rules provided for credits and rebates which were likewise unauthorized by section 912a(e).[13]

As a result of this Attorney General's opinion the Board in June 1971 requested Commissioner of Water Resources Martin L. Johnson and Assistant Attorney General John D. Hansen to prepare a draft of pollution charge rules which would conform to and implement section 912a(e). This resulted in a draft which was presented to the Board on December 24, 1971. This draft employed a graduated unit charge approach adjusted to reflect impact upon receiving waters. It is

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> b) Should a temporary pollution permit holder fail to qualify and receive a discharge permit in accord with the schedule contained in his temporary pollution permit he forfeits the right to the rebate provided in the preceding paragraph, (a), of this Rule of any portion of the pollution charge payments made or owed. At such time as he does qualify and receive a discharge permit all demand notes held shall be cancelled and returned.
>
> c) The reduction or elimination of any discharge of wastes that results from abandonment or curtailment of any operation contrary to the terms of his temporary pollution permit shall cause the permittee to forfeit his rights to a rebate of any portion of his pollution charge payments made or owed and the Department shall present all demand notes held for payment unless the Board decides otherwise upon appeal under RULE 17.

"The effect of the Board's rebate provisions was to set the effluent charges to temporary permit holders who comply with the terms of their permits equal to five per cent of the annualized capital costs plus one-half of the operating costs of providing the required abatement measures."

[12] Section 1, Act No. 93 of the 1971 Session of the Vermont General Assembly, approved April 22, 1971.

[13] Opinion No. 691, May 10, 1971, Office of the Attorney General, prepared by Assistant Attorney General John D. Hansen.

included in full as Appendix A to this report since it provides a concise statement of the rationale of section 912a(e) as well as a means for implementing it in accordance with the original intent.

Meanwhile Governor Davis had decided to suggest to the General Assembly that it amend section 912a(e) to provide that no pollution charges would be paid so long as a municipal temporary pollution permit holder maintained its schedule. "Unless this is done the legislature will feel the law [Act No. 252] is unworkable," Governor Davis said at a January 11, 1972 press conference. Governor Davis was concerned that subsection (e) would require municipalities without sewage treatment plants to pay pollution charges for an extended period of time for reasons which were essentially, i.e. economically, beyond their control. Since they could not economically build sewage treatment plants until such time as federal and state grant funds were available to them, the pollution charges assumed the appearance of a penalty rather than an incentive to adopt interim abatement measures. The magnitude of the charges for certain municipalities under the Johnson-Hansen draft helped to reinforce his argument. The Governor did not suggest industrial dischargers also be "exempted" because their progress in achieving abatement did not depend on the availability of government funding.[14]

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[14] The Governor's proposed amendment would have added a subsection (D) to 912a(e)(3) and a subsection (f) to 912a:

> (D) A city, town, village, school district or fire district holding a temporary pollution permit which has been issued upon the conditions that a pollution abatement facility or alternate waste disposal system will be constructed, installed and placed into operation according to plans and schedules approved by the department shall not be required to pay pollution charges accruing for its discharge of domestic wastes if it is in compliance with the approved plans and schedules. A city, town, village, school district or fire district which fails to comply with the plans and schedules approved by the department in connection with its temporary pollution permit shall thereupon be assessed and required to pay all pollution charges accrued for its discharge of domestic wastes since July 1, 1972, and shall thereafter be assessed and required to pay all pollution charges that accrue as provided in the regulations of the board establishing such charges.
>
> (f) The department is authorized to amend a temporary pollution permit to account for any changes in the circumstances of the permittee after the time of issuance.

Although the Governor's proposal was initially rejected by the Senate, his initiative led to the enactment of a law which made significant amendments in the regulatory system, including the pollution charge concept.[15] The changes in the pollution charge provision made by the 1972 amendments may be seen from the following text. (Dele-

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At the Governor's January 11, 1972 press conference, Board Chairman Denning Miller stated that the Board would hold an informtional meeting on the Johnson-Hansen draft pollution charge rules later in the month and then, unless the legislature responded favorably to the Governor's suggested amendment, the rules would be formally proposed by publication in accordance with the administrative procedure act.

[15] The Governor's suggestion, which was taken up by the Senate Natural Resources Committee, prompted considerable public comment. In response, the Committee requested interested state agencies and other persons to submit written briefs by February 8, 1972, on the proposed amendment. The Agency of Development and Community Affairs suggested that all holders of temporary pollution permits -- including industries -- be exempted from paying "penalties" unless not in compliance with abatement schedules. The Attorney General's office opposed the Governor's proposed amendment and offered as alternative suggestions that the General Assembly (1) pass a resolution telling the Water Resources Board to establish pollution charges as it was directed to do in 1970; or (2) enact additional guidelines for the Board to follow in establishing charge rates (e.g., by setting maximum and minimum rates); or (3) modify the pollution charge concept by attempting to devise a statewide equalized sewerage charge per person served by a municipal system. The Agency of Environmental Conservation proposed amendments which elaborated on those suggested by the Governor and the Agency of Development and Community Affairs by providing for deferments and rebates of charges.

On March 1, 1972, the Senate met as a committee of the whole to hear presentations of those who had submitted briefs. On March 16, 1971, it passed a bill (S. 173) postponing charges until 1973, establishing maximum and minimum limitations of $30.00 and $3.75 on the amount of annual charges per polluter, allowing the amendment of temporary pollution permits and appointing four legislative committees to "conduct a review of the practicability and effects of [the water pollution control law] as well as alternative means of financing sewage treatment facilities for individuals, municipalities and commercial enterprises... [and] report their findings together with their recommendations for appropriate legislation to the 1973 General Assembly."

Since the Senate's bill did not accomplish what Governor Davis ted language is bracketed, added language is underlined).

> (e) Pollution charges: [By January 1, 1971] Before July 1, 1972, the board shall adopt rules and regulations fixing and establishing the reasonable and just pollution charge rates for computing the amounts to be paid by temporary pollution permit holders pursuant to subsection (d) of this section and shall adopt such other and additional rules and regulations as may be necessary to implement the provisions of Chapter 33 of Title 10. The board is authorized to revise such charge rates from time to time therafter.
>
> (1) Purpose: It is expressly recognized that the authorized discharge of certain wastes which will reduce the quality of receiving waters below the established classification represents an expropriation of a valuable public natural resource for private or limited use and that such discharges are permitted under this subchapter for economic reasons in the public interest of providing time during which the degrading effects of such discharges can be abated. The imposition of pollution charges shall have the [principal] purpose of providing [the] an economic incentive for temporary pollution permit holders to [reduce the volume and degrading quality of their discharges during the limited period when such discharges are authorized, thereby raising the quality of the waters in the state] comply with the requirements, conditions and restrictions of their permits. Such charges shall be for the further purpose of protecting the health, welfare and safety of the general public, protecting, preserving, and benefiting navigation upon the waters of the state and protecting the general public interest in such waters including recreational and aesthetic interest. The charges are not imposed for revenue purposes and any income received by the state under this section shall be used solely for purposes of water quality management and pollution control.

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and members of his administration wanted, they prepared a proposed substitute for the consideration of the House Committee on Natural Resources. The Committee modified the proposed substitute only slightly, combined it with some provisions of the Senate's bill, and recommended that the House amend the Senate's bill by replacing it with the revised substitute. The House passed the revised substitute with only a few minor amendments from the floor. Predictably, the Senate refused to concur in the House amendment and requested a committee of conference. The conference committee's report, which was accepted by both the House and the Senate, amended section 912a(e) as indicated in the text immediately following.

(2) How established: A pollution charge is the price to be paid per unit of waste discharged into waters of the state. The charge may vary among different types of classes of wastes to account for the variations in the degrading effects of various wastes. The charges may also vary to account for variations in the water quality standards of different classes and the hydrologic conditions of different receiving waters. In establishing the charges the board shall attempt to approximate in economic terms the damage done to other users of the waters, both private users and the general public, caused by the degrading effect of various types of waste in varying volumes and frequencies of discharge upon water qualities of the different classes of waters. In determining relative degrading effect the board may employ any scientific or technical criteria or parameters such as biochemical oxygen demand and suspended solids and may express the unit charge in terms of such standards of measurement. In establishing all pollution charges, the board shall be guided by the limitation that the annual charge per person equivalent may not be greater than $30.00 nor less than $3.75.

(3)(A) When effective: [Notwithstanding any other provision or procedure set forth in this subchapter or contained in any rules or regulations duly adopted by the board, a] A person qualifying for and obtaining a temporary pollution permit shall not be assessed a pollution charge until the year commencing July 1, 1972. [provided the department shall find that the plans and reasonable schedules for construction, installation or operation of an approved pollution abatement facility or alternate waste disposal system have been established and that the necessary financing, including approvals by state or federal agencies of financing participation, if any, may be reasonably anticipated before July 1, 1972.]

(B) Commencing July 1, 1972, said pollution charges shall accrue as provided in the regulations of the board establishing said charges. The charges shall be payable 45 days after the end of each fiscal year ending on June 30.

[(C) A person holding a temporary pollution permit under the provisions of this subsection, who abandons or rescinds or otherwise fails or refuses to carry out his plans upon which the temporary permit has been granted, shall thereupon be assessed the charges which would otherwise have been applicable for the year commencing July 1, 1971 which charges together with the charges accrued from July 1, 1972 shall be immediately due and payable.][16]

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[16] The amendments were made by section 5 of Act No. 255 of the 1971 Adjourned Session of the Vermont General Assembly.

By amending section 912a(d)(4) the law also allowed temporary pollution permits to be extended and amended, "provided ... that if the permit is amended so as to provide for a change in the manner, nature, volume or frequency of the discharge permitted, the department shall require as a condition for such amendment the payment of periodic pollution charges in accordance with pollution charge rates established by the board pursuant to subsection (e) of this section." [17]

In addition, the law added section 912a(g) supplementing the guidelines for the Board's pollution charge rules:

> (g) Notwithstanding any of the provisions of Chapter 33 of Title 10, the rules adopted by the Board shall expressly provide that in the case of municipalities and persons connected to a municipal system operating under a temporary pollution permit, the charges established by the board shall not begin to accrue until three months after the department notifies the person, that state and federal grant funds have been allotted. The board's rules shall further provide that the charges accrued during each fiscal year in which a holder complies strictly with each of the requirements, conditions and restrictions contained in his permit shall be deferred. The board's rules shall further provide that deferred charges shall be excused and charges paid for non-compliance with the terms of a permit shall be refunded if the holder achieves compliance with the terms of his permit by its expiration date. The decision of the department on whether the holder achieved compliance with the terms of his permit may be appealed as provided for in section 914a of this subchapter. The board is authorized to revise the rules establishing such charge rates and procedures from time to time thereafter.[18]

In April 1973, Governor Thomas P. Salmon signed into law Act No. 103 of the 1973 Session of the General Assembly. Its purpose was to amend Vermont's water pollution control laws to enable the state to administer the National Pollutant Discharge Elimination System permit program in accordance with section 402(b) of Public Law No. 92-500. Pollution charges were specifically retained by this law. The only change made in section 912a(e), since recodified as section 1265(e), was to delete the power of the Water Resources Board to "adopt such other and additional rules and regulations as may be necessary to implement the provisions of Chapter 33 of Title 10." Section 912a(g) was similarly amended.

[17] Section 4, Act. No. 255 of the 1971 Adjourned Session.

[18] Section 11, Act No. 255 of the 1971 Adjourned Session.

These amendments changed the nature of pollution charges in Vermont from an incentive to take interim treatment measures to a fine for violating the terms and conditions of a temporary pollution permit. They also provide for deferral of charges paid if the discharger complies with his permit and refund of charges paid for any year he is assessed them if he achieves compliance by its expiration date. At the expiration date all deferred charges are to be excused. The terms and dates of temporary pollution permits may also be amended. The combined effect of these amendments is increased flexibility of permits and decreased likelihood that a permit holder will ultimately have to pay any pollution charges.

The Board adopted rules in accordance with the legislature's revised guidelines on June 29, 1972. These rules provide for uniform charge rates per increment of BOD, suspended solids, infected wastes and BTU's without regard to impact on receiving waters. The Board's rules are included as appendix C to this report.

As of December 1973, no charges had actually been imposed. Commissioner of Water Resources Gordon Pyper wrote on December 14, 1973:

> Essentially all amended permits not only having been issued for the same volume of waste have in all instances to my recollection contained the same terminal date, therefore pollution charges have not been assessed.
>
> It is difficult to say whether the pollution charges provide more incentive to permit holders to comply with the terms of their permits than the normal legal sanctions as no pollution charges have been assessed to date. It is however our general opinion that the magnitude of the pollution charges particularly in the case of small industry or individuals is not significant enough to afford any major impact.[19]

This last comment refers to the fact that the Board's charge rules would assess a per person equivalent annual fee of $4.76. Commented then-Commissioner of Water Resources Martin L. Johnson when these rules were proposed: "It's like spending two years building a manmade volcano and then gathering people around it, and all it does is burp."[20]

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[19] Letter to William A. Irwin, Environmental Law Institute, December 14, 1973.

SURVEILLANCE FEES IN MICHIGAN

After mercury was unexpectedly discovered in the effluents of several Michigan enterprises in 1970, causing widespread concern and issuance of executive orders which significantly affected the state's commercial fishing industry, Governor William G. Milliken determined there should be a law requiring enterprises to disclose the hazardous or toxic constituents used in their manufacturing processes which might be discharged and requiring payment of surveillance fees to fund increased monitoring of discharges by state personnel.[21]

House Bill 4021, sponsored by Rep. Ray Smit of Ann Arbor and tagged as the "truth in pollution" bill, became Public Act No. 200 when signed by Governor Milliken on August 25, 1970. Its stated purpose was "to require the registration of manufacturing products, production materials, and waste products where certain wastes are discharged; [and] to provide for surveillance fees upon discharges to the waters of the state in order to provide for investigation, monitoring and surveillance necessary to prevent and abate water pollution."[22]

The law added subsections 13 and 6b to section 323 of the Michigan Compiled Laws. These subsections provided:

> §23.13(a) In order to provide for increased surveillance, investigation, monitoring and other activities necessary to provide greater protection of the quality of waters of this state, an annual surveillance fee is payable by a person,

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[20] Rutland Daily Herald, June 3, 1972, p.1, col.1. For law review commentaries on Vermont's pollution charges, see Nicholas P. Moros, "Effluent Fees in Water Quality Management: The Vermont Water Pollution Control Act," 1 Environmental Affairs, 631-53 (1971); Note, "Water Pollution Control in Vermont: A System of Effluent Charges," 4 Journal of Law Reform, 135-47 (1970). Vermont's Act No. 252 was chosen by the Council on State Goverments as a model water pollution control statute in 1970. See volume XXX, Suggested State Legislation, 215.

[21] Governor Milliken said the aim of the surveillance fee is to "more than double the capacity of the Air Pollution Control Commission and increases the surveillance capability of the Water Resources Commission by 50 per cent." Ann Arbor News, Monday, May 4, 1970, p. 5.

[22] Public Act No. 200, 1970 Regular Session, section 1, amending the title of Michigan's water pollution control law, codified as M.C.L.A. prec. section 323.5.1.

company, corporation, but not a municipality, discharging water borne waste directly or indirectly into any waters of the state from any manufacturing facility; or from any other commercial establishment which may generate a discharge inconsistent with the protection of waters of the state. The fees shall be for the cost of surveillance of industrial and commercial discharges and receiving waters. The cost of necessary surveillance of municipal discharges shall not be financed from revenues to be derived but may be provided otherwise by law. In any year, the total surveillance fees assessed on discharges shall not exceed the total amount appropriated to the commission and other appropriate state agencies for the surveillance, monitoring and related activities necessary to adequately assess the impact of commercial and industrial waste-water discharges on waters of the state.

(b) On or before February 1 of each year the commission shall inform each such discharger and the state treasurer of the annual surveillance fee due, from each plant location or major manufacturing component and commercial enterprise as provided by rules.

(c) On or before March 1 of each year a discharger shall pay to the state treasurer the amount of surveillance fee due who shall deposit it in the general fund of the state. The treasurer shall report the total annual amount collected to the governor and the legislature on or before April 15 of each year.

(d) The annual surveillance fee shall be based on an administrative fee of $50.00 and an additional fee set by the commission. The additional fee shall be determined on a graduated basis using the volume of discharge to determine a base fee which shall be multiplied by a factor dependent on the strength of organic and inorganic waste constituents to establish the total annual surveillance fee. The maximum annual fee assessed upon any discharge which is in conformance with commission effluent restrictions shall not exceed $9,000.00 per manufacturing location. Discharges into a municipal sewerage system shall be assessed only the $50.00 administrative fee unless such discharge after municipal treatment is or may become injurious to the waters of the state as set forth in section 6 in which event the assessment will be based upon the same considerations as if the discharge after treatment were being discharged by the manufacturing facility or commercial establishment directly into the waters of the state. The commission shall adopt such rules as are necessary to implement this section in accordance with Act No. 306 of the Public Acts of 1969, being sections 24.201 to 24.313 of the Compiled Laws of 1948.

> 323.6b Every person, doing business within this state discharging waste water to the waters of the state or to any sewer system, which contains wastes in addition to sanitary sewage shall file annually reports on forms provided by the commission setting forth the nature of the enterprise, a list of materials used in and incidental to its manufacturing processes and including by-products and waste products, which appear on a register of critical materials as compiled by the commission, and the estimated annual total number of gallons of waste water, including but not limited to process and cooling water to be discharged to the waters of the state or to any sewer system. The information shall be used by the commission only for purposes of water pollution control. The commission shall provide proper and adequate facilities and procedures to safeguard the confidentiality of manufacturing proprietary processes except that confidentiality shall not extend to waste products discharged to the waters of the state. Operations of a business or industry which violate this section may be enjoined on petition of the water resources commission to a court of proper jurisdiction. The committee shall adopt rules as it deems necessary to effectuate the administration of this section, inaluding where necessary to meet special circumstances, reporting more frequently than annually, in accordance with Act No. 306 of the Public Act of 1969.

As the law states, the purpose of Michigan's surveillance fee is to fund increased monitoring. It is thus tantamount to a user charge. Municipalities were freed from the requirement to pay fees because the legislature felt it made no sense for the Water Resources Commission, which also administers the municipal sewage treatment plant construction grant program, to collect fees from municipalities on the one hand and give them grants on the other.

Section 323.13(d) also provided that fees be graduated on the basis of volume and strength of the discharge. It is this provision which has led some to characterize surveillance fees as disincentives. Because of the $9,000 ceiling on fees per location, however, the fees do not have a disincentive effect. The graduation of the fees is analogous to the surcharges sometimes incorporated in sewer user charge ordinances, discussed in section II.

The Water Resources Commission's rules implementing section 323.13(d) have changed as a result of a 1972 amendment to that section. Originally in addition to the $50 administrative fee there was to be a volume base fee multiplied by a factor "dependent on the strength of organic and inorganic waste constituents."[23] Public Act No. 293 of 1972 provides that the additional fee:

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[23] The language was implemented by Rules 47 and 48 of the Water Resources Commission which provided:

R 323.47: Volume base fees.

Rule 47. The volume base fee shall be on a graduated basis as follows:

Average Wastewater Discharge Volume Based on Day When Discharge Occurs (Million Gallons Per Day)	Volume Base Fee
less than .005	$ 25.00
.005 but less than .10	50.00
.10 but less than .50	100.00
.50 but less than 1.0	200.00
1.0 but less than 2.5	350.00
2.5 but less than 5.0	500.00
5.0 but less than 10.0	750.00
10.0 but less than 25.0	1000.00
25.0 but less than 100.0	1250.00
100.0 and over	1500.00

R 323.48: Strength factor.

Rule 48. (1) Determination of the strength factor used in calculation of a surveillance fee shall be based upon the following subfactors:

(a) The strength variability of waste effluent flow.

(b) The strength of the waste effluent flow related to flow conditions in the receiving waters.

(c) The strength of the waste effluent as related to the critical nature of the receiving water as indicated by its protected designated uses for public water supplies, cold water intolerant fish, total body contact, warm water intolerant fish, industrial water use and commercial water use.

(d) The strength of the waste effluent as related to common waste constituents to be monitored.

(e) The strength of the waste effluent as related to critical waste constituents to be monitored.

(f) The recent history of the waste strength impact on the receiving waters.

(2) The strength factor shall have a possible calculated range from 1.0 to 10.0

These rules were effective November 1, 1971.

> shall be determined on a graduated basis using a formula developed by rules of the commission. The formula shall include the volume and nature of the discharge, number of discharge locations, variability of flow volume, stream characteristics, laboratory tests required, area surveillance, difficulty of survey setup, history of compliance and provisions for compliance, and such other factors as the commission deems appropriate...

Rules 237 and 238 on page 20 of the Commission Wastewater Report Forms booklet (Appendix C) show how this amendment has been implemented, pages 15-16 show how a sample fee is calculated on the basis of these rules. The amount of critical materials (which are selected because they are, or are believed to be, toxic to humans and fish in small concentrations, or are accumulated in tissue and concentrated in food chains, or cause fish taint problems) discharged is not a factor in the formula.

Approximately 1,000 firms file reports each year and about $1 million in fees is collected annually. As the law provides, no more money may be collected for surveillance activities in any year than the legislature appropriates for those purposes. The surveillance fee program requires approximately two and one-half person-years to administer, mostly between the October 1 billing date and the February 1 due date. The fees have facilitated a substantial expansion of water quality monitoring, industrial wastewater surveys and bioassays, stream surveys and plant visits according to the program's coordinator, Jerry Fore. Discharges of critical materials have not changed since fees were introduced, although (largely as a result of the FWPCA Amendments of 1972) many companies are making an effort to reduce the volume of wastewaters discharged. Firms have not needed to add personnel because of the surveillance fee program. In sum, says Fore, "there have been no great difficulties in administering this program. Industry has been very cooperative and has willingly supplied the information required. The present law accomplishes its purpose well and we would not recommend amendments."

By Public Act No. 257 of the Public Acts of 1972 Michigan amended its air pollution act and added surveillance fees. Michigan Compiled Laws section 336.24(a) provides a similar arrangement for emissions of air pollutants as exists for water pollutants:

> (1) Notwithstanding any other provision of this act, in order to provide for increased surveillance, investigation and other activities necessary to provide greater protection of air of this state and for attainment and maintenance of national ambient air quality standards, the commission shall levy an annual surveillance fee based on the commission's estimate of the surveillance cost to the commission or a local

agency as provided for in subsection (2) for each manufacturing or commercial location. The annual surveillance fee shall be reasonable and uniform as between manufacturing and commercial locations and shall be based on an administrative fee of $25.00 and an additional fee set by the commission. The additional fee shall be determined on a graduated basis using a formula developed by rules of the commission. The formula may include the volume and nature of discharge, number of discharge locations, variability of discharge, laboratory tests required, area surveillance, difficulty of survey setup, history of compliance and provisions for compliance and such other factors as the commission deems appropriate to establish the total annual surveillance fee. The maximum annual fee assessed shall not exceed $8,000.00 per manufacturing location. In any year, the total surveillance fees assessed shall not exceed the total amount appropriated to the commision or other appropriate state or local agencies for such surveillance. On or before February 1 of each year the commission shall inform a discharger and the state treasurer of the annual surveillance fee due for a plant location or major manufacturing component and commercial enterprise as provided by rules. On or before March 1 of each year a discharger shall pay to the state treasurer the amount of surveillance fee due who shall deposit it in the general fund of the state. The treasurer shall report the total annual amount collected to the governor and the legislature on or before April 15 of each year. In addition, the state or local agency may require an annual report that states the nature of the enterprise, list of materials used in and incidental to the person's manufacturing processes including by-products and waste products which appear on a commission's register of materials and shall promulgate any additional rules that may be necessary or required to implement this section and the applicable federal law or regulations.

(2) The commission may suspend the enforcement of this act or the rules promulgated under this act as to specific counties or local units of government when it finds that compliance with the local air pollution control ordinance or rules would effectuate substantial compliance with this act, the rules promulgated under this act or applicable federal law or regulations where such an agency has an established program of surveillance, investigating or other activity for the purpose of providing greater protection of air in their area or for attainment and maintenance of national ambient air quality standards equal to or greater than the minimum applicable requirements of this act or applicable federal law or regulations. That portion of the fees to be returned to the local agency shall be determined by the

> commission and shall be based upon that portion of cost for the overall air pollution control program borne by the local agency. A local agency shall not assess any type of fee for its air pollution operations.

Section 336.24(a) specifically provides that the annual fee be based on the air pollution control commission's estimate of the surveillance cost to the commission for each manufacturing or commercial location. In addition to the $25 administrative fee, it "may" be based on a list of other factors nearly identical to those enumerated in Act 293 of the Public Acts of 1972 for water surveillance fees. The fee may not exceed $8,000 per manufacturing location. Although the formula developed by the commission for the additional fees establishes more proportionality between level of emissions and amount of the fee,[24] this $8,000 ceiling is reached very quickly

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[24] Rule 336.82 of the Michigan administrative rules for air pollution control provides:

> R 336.82. Annual fees.
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> Rule 82. Except as provided in rule 83, a person who operates any air contaminant source at a commercial or manufacturing location, which source emits 1 or more of the contaminants listed in table 5 to the outer air, shall pay to the State of Michigan an annual surveillance fee as required by section 14(a) of Act No. 348 of the Public Acts of 1965, as amended, being section 336.24(a) of the Michigan Compiled Laws. This fee shall be that calculated by the following formula, however, the fee shall not exceed $8,000.00 per location:
>
> $$\text{Annual Fee} = \$25 + [(\$50 \cdot N) + (\$100 \cdot W + \$20 \cdot X + \$10 \cdot Y + \$1 \cdot Z)]\ (r).$$
>
> N = Number of surveillance investigations per year scheduled by the state or local air pollution control agency which has been deemed eligible by the commission to receive a portion of the fees collected.
> R = Correction factor -- this factor to be established each year by the commission at some value not to exceed 1.0. The exact value of R will be established so that the total amount of fees paid to the state shall not exceed the total amount appropriated to state and local air pollution control agencies for conducting air pollution surveillance.
> W = Annual emission* of all pollutants in group 2, table 5, (tons/year).
> X = Annual emission* of particulate matter (tons/year).

even by small firms and prevents the fees from having a disincentive effect.

Y = Annual emission* of sulfur dioxide (tons/year)
Z = Annual emission* of all other pollutants named in group 1, table 5 (tons/year).

*The annual emission will be calculated by use of emission factors contained in the United States Environmental Protection Agency, Office of Air Programs publication, "Compilation of Air Pollution Emission Factors," (Publication Number AP-42, dated February 1972, which may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a cost of $1.50. It is available for inspection at the Department of Public Health, 3500 North Logan Street, Lansing, Michigan 48914). Unless, data considered by the Commission to be more reliable for the purpose of determining air contaminant emissions is available, in which case the more reliable data shall be used.

Table 5 lists the following materials in Groups 1 and 2:

TABLE 5

REGISTER OF MATERIALS

Group 1
- Particulate (except those listed in group 2)
- Sulfur Dioxide
- Oxides of Nitrogen
- Carbon Monoxide
- Ammonia
- Alcohols
- Ethers
- Esters
- Ketones
- Halogenated Hydrocarbons
- Non-methane Hydrocarbons

Group 2
- Asbestos
- Benzo-a-pyrene
- Beryllium or its Compounds
- Bromine
- Chlorine
- Cyanides
- Flourides
- Flourine
- Iodine
- Lead or its Compounds
- Mercaptans
- Mercury or its Compounds
- Pesticides
- Sulfides, Organic and Inorganic

The exception referred to is for manufacturing or commercial locations where the only source of an air contaminant listed on table 5 is a solid waste disposal incinerator. Depending on the size of the incinerator, such a location will either pay no surveillance fee or only a $25 administrative fee. Rule 336.83.

Michigan's surveillance fees are thus a means of funding increased monitoring, inspections, lab tests, etc. They are currently under study by the U.S. Environmental Protection Agency as potential models for other states to supplement their budgets in lieu of federal air and water program grants, which may be discontinued.[25]

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[25] "EPA Explores User Fee System as Means of Financing Pollution Control Agencies," Environment Reporter, July 5, 1974, Current Developments, p. 277. See also 4 C.C.H. Clean Air and Water News 777 (1972) for other state actions based on the Michigan law.

SECTION IV

LEGAL FEASIBILITY OF UTILIZING DISINCENTIVES AS SUPPLEMENTS TO FEDERAL ENVIRONMENTAL LAWS

This section analyzes the legality of employing disincentive mechanisms such as effluent charges or emission fees in conjunction with existing federal laws and regulations administered by the Environmental Protection Agency. This analysis involves two questions: 1) whether there are any constitutional difficulties with disincentives as a means of governmental control over behavior affecting the natural environment; and 2) whether the statutes governing water pollution, air pollution, noise, pesticides and solid wastes leave any room for federal regulations or state or local laws or regulations adopting a disincentive approach as a supplement to the existing framework of regulation. The constitutional landscape has already been surveyed by several legal scholars; they found no barriers to disincentives approaches in general although they suggest certain precautions in proceeding.[1] The legislative histories and provisions of some of the statutes EPA administers have been analysed for authority to adopt disincentives, others have not. This section deals first with constitutional aspects of employing disincentives and then with the possibilities under each of the specific statutes involved.

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[1] See, Silas Robert Lyman, The Constitutionality of Effluent Charges, Technical Report OWRR A-022-Wis, May 1969, a study conducted as a part of a research project supported by the U.S. Department of Interior, Office of Water Resources Research and performed jointly by the University of Wisconsin Water Resources Center and the U.S. Department of Agriculture, Economic Research Service. Note, "The Effluent Fee Approach for Controlling Air Pollution," Duke Law Jour. (1970), 943-90; Edward I. Selig, "Legal Considerations of An Effluent Charge System": a technical appendix in a report submitted by Meta Systems, Inc. under EPA Contract No. 68-01-0566 entitled Effluent Charges -- Is the Price Right?; and Frederick R. Anderson, "The Law of Charges," in Economic Incentives for Environmental Control: Legal, Economic, Technical and Political Aspects, forthcoming in 1974 from Johns Hopkins Press for Resources for the Future, Inc.

For an excellent discussion of the constitutional aspects of environmental law, see Philip Soper, "The Constitutional Framework of Federal Environmental Law," in Federal Environmental Law, Erica Dolgin and Thomas Guilbert, eds., Environmental Law Institute, West Publishing Co., forthcoming 1974.

CONSTITUTIONALITY OF DISINCENTIVES

Introduction

The constitutional bases for and limits on disincentives such as effluent charges have been carefully researched and described. The principal questions involved are:

1. What powers could the federal government employ to establish a disincentive regime?
2. What limits are there to those powers?
3. What other constraints govern the exercise of those powers?
4. What powers could the states (or their subdivisions) exercise to establish disincentives?
5. What limits and constraints are there to those powers?

It is important to re-emphasize the definition of disincentive in this context because the nature and purpose of a particular approach are central to discussing its constitutional aspects. A disincentive is a monetary charge levied on conduct which is not illegal for the purpose of discouraging that conduct.

Federal Power to Adopt Disincentives

Power to Regulate Commerce -- "The Congress shall have Power To ... regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes." This short clause from Article I, section 8 has been interpreted to mean that Congress may regulate (1) the means of producing goods which pass in interstate commerce[2] (2) the channels through which these goods may pass in interstate commerce[3]

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[2] United States v. Darby, 312 U.S. 100 (1941), upheld the Fair Labor Standards Act of 1936, §15(a)(1) prohibition on shipment in interstate commerce of any goods produced by employees who were paid less than the minimum wage prescribed by the Act or whose maximum hours of employment without overtime pay exceeded forty-four.

> The motive and purpose of the present regulation are plainly to make effective the Congressional conception of public policy that interstate commerce should not be made the instrument of competition in the distribution of goods produced under substandard labor conditions, which competition is injurious to the commerce and to the states from and to which the commerce flows. The motive and purpose of a regulation of interstate commerce are matters for the legislative judgment upon the exercise of which the Constitution places no restriction and over which the courts are given no control.

Section 15(a)(2) of the Act also proscribed paying employees engaged in the production of goods for interstate commerce less than the prescribed minimum wage or causing them to work more than forty-four hours per week at regular pay. Darby's employees processed raw materials into finished lumber and Darby then shipped it to out of state customers. Since the employees were not themselves engaged in interstate commerce, the question, the Court stated, is "whether the employment under other than the prescribed labor standards, of employees engaged in the production of goods for interstate commerce is so related to the commerce and so affects it as to be within the reach of the power of Congress to regulate it." The question was answered affirmatively and the proscription of section 15(a)(2) was also sustained as a means reasonably adapted to attaining the permitted end of excluding from interstate commerce all goods produced for it which do not conform to the specified labor standards even though these means "involve control of intrastate activities."

Congress amended the Fair Labor Standards Act to cover "all employees of any enterprise engaged in commerce" (instead of engaged in commerce or in the production of goods for commerce) and then amended it again to include hospitals, nursing homes and public or private educational institutions (elementary, secondary or higher). For the Supreme Court's opinion sustaining these extensions of coverage, see Maryland v. Wirtz, 392 U.S. 183 (1968), a case also based on the authority of United States v. California, infra, footnote 8.

[3] In Champion v. Ames, 188 U.S. 321 (1903) the Supreme Court upheld the Federal Lottery Act, which prohibited importing, mailing or causing interstate carriage of lottery tickets. "Why," asked Mr. Justice Harlan rhetorically for the Court, "may not Congress, invested with the power to regulate commerce among the several states, provide that such commerce shall not be polluted by the carrying of lottery tickets from one state to another?" He concluded it could. "As a state may, for the purpose of guarding the morals of its own people, forbid all sales of lottery tickets within its limits, so Congress, for the purpose of guarding the people of the United States against the widespread pestilence of lotteries and to protect the commerce which concerns all the states, may prohibit the carrying of lottery tickets from one state to another."

The federal district court in Maryland, in upholding the validity of the Clean Air Act, expressed similar reasoning in regarding air pollutants (including odors) as articles moving in commerce which and, most generally, (3) activities which affect interstate commerce.[4]

Congress may regulate. United States v. Bishop Processing Co., 287 F. Supp. 624, 629 (1968); affirmed, 423 F.2d 469 (4th Cir. 1970); cert. denied, 398 U.S. 904 (1970). Congress has also proscribed the shipment of stolen goods and the transportation of kidnapped persons in §§2312-15 and 1201 of Title 18, U.S.C., respectively.

[4] One of the best known cases illustrating this aspect of Congress' power to regulate commerce is Wickard v. Filburn, 317 U.S. 111 (1942). Under the Agricultural Adjustment Act of 1938 a wheat acreage allotment of 11.1 acres at 20.1 bushels per acre was established for Filburn for 1941. Filburn planted more than twice that many acres and harvested an excess of 239 bushels which was subject to a penalty of 49 cents per bushel. Filburn normally sold part of his crop, fed some of it to his poultry and stock, used some for making flour for home consumption, and kept some for next year's seed. He contended that Congress had exceeded its power under the Commerce Clause.

"The question would merit little consideration," wrote Mr. Justice Jackson for the Court, "since our decision in United States v. Darby [see note 2, supra]...except for the fact that this Act extends federal regulation to production not intended in any part for commerce but wholly for consumption on the farm." The opinion then explained the futility of attempting to decide such cases with the aid of labels as "direct" and "indirect" effects on commerce. "[E]ven if [Filburn's] activity be local and though it may not be regarded as commerce, it may still, whatever its nature, be reached by Congress if it exerts a substantial economic effect on interstate commerce..."

The Court went on to analyze the wheat industry and the effect on market demand for wheat of growing wheat for home consumption. "That [Filburn's] own contribution to the demand for wheat may be trivial by itself is not enough to remove him from the scope of federal regulation where, as here, his contribution, taken together with that of many others similarly situated, is far from trivial." The Court concluded that it was within Congress' power to regulate commerce in wheat by stimulating its prices via restricting competition from home-grown wheat.

A more recent decision on the constitutionality of the Civil Rights Act of 1964 is in the same category. In Katzenbach v. McClung, 379 U.S. 294 (1964), the Supreme Court upheld the application of the Act's requirements to a local restaurant as a valid exercise of the commerce power on the grounds that there was a reasonable basis for concluding that discrimination by such restaurants resulted in less sale of interstate goods and less interstate travel by Negroes.

The principles stated by the Supreme Court in interpreting the Commerce Clause lead to the conclusion that if it wished to do so Congress could regulate behavior affecting the environment by means of disincentives. If lottery tickets which pollute the channels of commerce can be prohibited altogether[5] then the decibels and bottles and sulfur oxides and suspended solids which pollute their respective media -- or the goods which produce them -- can certainly be subject to charges designed to reduce their occurrence. Just as Congress may provide that lumber cannot be produced for shipment in interstate commerce without paying the minimum wage it establishes,[6] so it could provide that the goods causing pollution cannot be produced without paying a charge designed to discourage the pollution. If growing wheat for home consumption in excess of prescribed quotas can be fined per bushel of excess because it has an effect on national commerce in wheat[7] then applying toxic pesticides to one's garden could, constitutionally, be subjected to a charge per pound. The fact that these activities are already regulated under permit-and-standards laws enacted by Congress does not constitutionally prevent their being additionally regulated by applying disincentives.

Exercise of this power to regulate commerce applies not only to private enterprises but also to public entities. Neither states nor their subdivisions are excused from compliance with provisions of law enacted by Congress under the Commerce Clause[8].

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[5] Cf. note 3.

[6] Cf. note 2.

[7] Cf. note 4.

[8] In United States v. California, 297 U.S. 175 (1936), California contended it could not be compelled to pay a penalty for a violation of the federal Safety Appliance Act by its state owned and operated State Belt Railroad because it was engaged in performing a public function in its sovereign capacity and for that reason could not constitutionally be subjected to the provisions of the federal Act. Mr. Justice Stone answered for the Court:

> The only question we need consider is whether the exercise of that power, [reserved to the States] in whatever capacity, [sovereign or private] must be in subordination to the power to regulate interstate commerce, which has been granted specifically to the national government. The sovereign power of the states is necessarily diminished to the extent of the grants of power to the federal government in the Constitution...[T]here is no such limitation [like the immunity of state instrumentalities from federal taxation] upon the plenary power to regulate commerce. The state can no more

The Fifth Amendment to the Constitution[9] provides the basis for judicial limitations on Congress' exercise of its power to regulate commerce. The current approach of the courts was first articulated by the Supreme Court in Nebbia v. New York,[10] in which the conviction of grocer Nebbia for selling milk below the minimum price fixed by New York's Milk Control Board pursuant to a 1933 statute was upheld:

> The Fifth Amendment, in the field of federal activity, and the Fourteenth, as respects state action, do not prohibit governmental regulation for the public welfare. They merely condition the exertion of the admitted power, by securing that the end shall be accomplished by methods consistent with due process. And the guaranty of due process, as has often been held, demands only that the law shall not be unreasonable, arbitrary, or capricious, and that the means selected shall have a real and substantial relation to the object sought to be attained.[11]

> deny the power if its exercise has been authorized by Congress than can an individual. California, by engaging in interstate commerce by rail, has subjected itself to the commerce power, and is liable for a violation of the Safety Appliance Act...

Cf. City of Eufala, Ala. v. U.S., 313 F.2d 745 (5th Cir. 1973), in which the city's right to discharge sewage into a river was cut off in favor of a navigation project because the right was "subject to the power of Congress to control the waters for the purpose of commerce." The quoted words are from U.S. v. Appalachian Electric Power Co., 311 U.S. 377 (1940).

[9] "No person shall...be deprived of life, liberty, or property, without due process of law..."

[10] 291 U.S. 502 (1934).

[11] The opinion for the court was written by Mr. Justice Roberts. Later he restated the principle:

> So far as the requirement of due process is concerned, and in the absence of other constitutional restriction, a state is free to adopt whatever economic policy may reasonably be deemed to promote public welfare, and to enforce that policy by legislation adapted to its purpose. The courts are without authority either to declare such policy, or, when it is declared by the legislature, to override it. If the laws passed are seen to have a reasonable relation to a proper legislative purpose, and are neither arbitrary nor discriminatory, the requirements of due process are satisfied...The Constitution does not secure to any one liberty to conduct his business in such fashion as to inflict injury upon the public at

The Fifth Amendment also limits government regulation by providing "nor shall private property be taken for public use, without just

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large, or upon any substantial group of people. Price control, like any other form of regulation, is unconstitutional only if arbitrary, discriminatory, or demonstrably irrelevant to the policy the legislature is free to adopt, and hence an unnecessary and unwarranted interference with individual liberty.

This case dealt with a state law, but the approach is the same for federal laws. In United States v. Darby, supra, note 2, the minimum wage and maximum hours provisions were also attacked as in violation of the due process guaranty. "Since our decision in [West Coast Hotel Co. v. Parrish, 300 U.S. 379 (1937)]," wrote Mr. Justice Stone, "it is no longer open to question that the fixing of a minimum wage is within the legislative power and that the bare fact of its exercise is not a denial of due process under the Fifth any more than under the Fourteenth Amendment." In the Parrish case Washington's statute authorizing the establishment of minimum wages for women and minors was upheld:

> In dealing with the relation of employer and employed, the legislature has necessarily a wide field of discretion in order that there may be suitable protection of health and safety, and that peace and good order may be promoted through regulations designed to insure wholesome conditions of work and freedom from oppression...What can be closer to the public interest than the health of women and their protection from unscrupulous and overreaching employers? And if the protection of women is a legitimate end of the exercise of state power, how can it be said that the requirement of the payment of a minimum wage fairly fixed in order to meet the very necessities of existence is not an admissible means to that end?...The legislature was entitled to adopt measures to reduce the evils of the "sweating system," the exploiting of workers at wages so low as to be insufficient to meet the bare cost of living thus making their very helplessness the occasion of a most injurious competition. The legislature had the right to consider that its minimum wage requirements would be an important aid in carrying out its policy of protection. The adoption of similar requirements by many States evidences a deep seated conviction both as to the presence of the evil and as to the means adapted to check it. Legislative response to that conviction cannot be regarded as arbitrary or capricious, and that is all we have to decide. Even if the wisdom of the policy be regarded as debatable and its effects uncertain, still the legislature is entitled to its judgment. (emphasis added)

compensation." Unfortunately "there is no set formula to determine where regulation ends and taking begins."[12] In some fields the power is fairly well defined. The "right" of a riparian property owner to reasonably use water, for example, is subject to regulation under laws to control navigability or pollution.[13] But, as recent analyses[14] have demonstrated, there are various tests the Supreme Court has applied over the decades in deciding whether a particular law is a taking requiring compensation or merely a reasonable regulation to protect a legitimate public interest, and it is not possible to predict outcomes of particular cases with certainty. The most frequently employed test seems to be that if the regulation causes a drastic reduction in the economic value of the property it is deemed a taking.[15]

A carefully designed disincentives system would not be prevented by these two limitations on the exercise of the power to regulate commerce: the goal of controlling pollution or otherwise preserving environmental quality to promote the public welfare is not unreasonable and both economic theory and practical experience with the effects of taxes in controlling behavior indicate that charging sufficiently for pollution or other detrimental behavior has a

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The end of Supreme Court review of legislation for conformance with due process was emphatically stated by Mr. Justice Douglas for a unanimous Court in *Olsen v. Nebraska ex rel. Western Ref. and Bond Ass'n.*, 313 U.S. 236 (1941): "We are not concerned ...with the wisdom, need, or appropriateness of the legislation. Differences of opinion on that score suggest a choice which 'should be left where ... it was left by the Constitution -- to the states and to Congress'..." For more recent restatements of this position *see Ferguson v. Skrupa*, 372 U.S. 726 (1963) and *Heart of Atlanta Motel, Inc. v. United States*, 379 U.S. 241 (1964).

[12] *Goldblatt v. Hempstead*, 369 U.S. 590 (1962).

[13] *United States v. Willow River Power Co.*, 324 U.S. 499 (1945); *United States v. Appalachian Electric Power Co.*, 311 U.S. 377 (1940); *Zabel v. Tabb*, 430 F.2d 199 (5th Cir., 1920).

[14] *See*, for example, Sax, "Takings and the Police Power," 74 *Yale Law Journ.* 36(1964); Sax, "Takings, Private Property and Public Rights," 81 *Yale Law Journ.* 149 (1971); "The Law and Land Use Regulation," Ch. 4 of *Environmental Quality, The Fourth Annual Report of the Council on Environmental Quality*, September 1973.

[15] *Goldblatt v. Hempstead, supra*, note 12, referring to two other important cases, *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922) and *Hadachek v. Los Angeles*, 239 U.S. 394 (1915).

real and substantial relation to that goal.[16] A disincentive regulation which did not go "too far"[17] toward reducing the value of property would not be viewed as a taking.

Rodgers v. U.S.[18] is a case which both illustrates the use of disincentives under the Commerce Clause and provides a basis for distinguishing such disincentives from those which may be imposed under the next Congressional power to be discussed, the power to levy and collect taxes.[19] In this case a sanction of three cents per pound of cotton marketed in excess of quotas under the Agricultural Adjustment Act of 1938 was held to be:

> not the levying of a tax under the government's taxing power, but a method adopted by the Congress for the express purpose of regulating the production of cotton affecting interstate commerce. The test to be applied is to view the objects and purposes of the statute as a whole and if from such examination it is concluded that revenue is the primary purpose and regulation merely incidental, the imposition is a tax and is controlled by the taxing provisions of the Constitution. Conversely, if regulation is the primary purpose of the statute, the mere fact that incidental revenue is also obtained does not make the imposition a tax...
>
> There is a marked distinction between taxation for revenue... and the imposition of sanctions by the Congress under the commerce clause. The power of Congress to 'regulate commerce' is the power to prescribe the rules by which commerce is to be governed and the Congress is at liberty to adopt any method which it deems effective to accomplish the permitted end.

The court further noted that the monetary sanction of three cents per pound was one of a class of

> impositions made incidentally under the commerce clause... as a means of constraining and regulating what may be considered by the Congress as pernicious or harmful to commerce.
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> The imposition...has for its object the fostering, pro-

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[16] A.V. Kneese and B. T. Bower, Managing Water Quality: Economics, Technology and Institutions (1968), ch. 6; 21 U.S.C. §801 (1970).

[17] This is Mr. Justice Holmes' test in Pennsylvania Coal Co. v. Mahon, supra, note 15, which of course doesn't answer the question "how far is too far?"

[18] 138 F.2d 992 (6th Cir., 1943).

[19] U.S. Constitution, Article I, section 8, clause 1.

> tecting and conserving of interstate commerce and the prevention of harm to the people from its flow.

Power to Lay and Collect Taxes, Duties, Imposts and Excises -- There are many Supreme Court cases dealing with various kinds of indirect taxes[20] but the scope of Congress' power is not entirely clear. In general Congress may levy exactions which have the effect of controlling behavior in addition to raising revenue.[21] But it may not go so far as to exact a penalty under the label of a tax.[22] Nor may it regulate behavior via the tax power unless it otherwise has the power to regulate, excepting, of course, a separately valid revenue-raising measure which only incidentally regulates commerce.[23]

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[20] In addition to the indirect taxes it may impose under Article I, section 8, clause 1, Congress may levy direct taxes under Article I, section 9, clause 4. Direct taxes, e.g., capitation taxes, taxes on land, or taxes on stock dividends must be apportioned among the states according to the census, however. The Sixteenth Amendment obviated the need to apportion taxes on income.

[21] Veazie Bank v. Fenno, 8 Wallace 533 (1869) (10 per cent tax on amount of private bank notes):

> It is insisted...that the tax...is excessive, and so excessive as to indicate a purpose on the part of Congress to destroy the franchise of the bank, and is, therefore beyond the constitutional power of Congress. The first answer to this is that the judicial cannot prescribe to the legislative department of the government limitations upon the exercise of its acknowledged powers. The power to tax may be exercised oppressively upon persons, but the responsibility of the legislatures is not to the courts, but to the people by whom its members are elected. So if a particular tax bears heavily upon a corporation, or a class of corporations, it cannot, for that reason only, be pronounced contrary to the Constitution.

McCray v. United States, 195 U.S. 27 (1904) (ten cent per pound tax on colored oleomargarine as compared to $.0025 per pound for uncolored oleo): McCray argued the Congress could not employ its power "so as to destroy or restrict the manufacture of artificially colored margarine." To this the Court replied:

> This, however, is but to say that the question of power depends, not upon the authority by the Constitution, but upon what may be the consequences arising from the exercise of lawful authority. Since...the taxing power conferred by the Constitution knows no limits except those expressly stated in that instrument, it must follow, if a tax be within the lawful power, the exertion of that power may not be judicially restrained because of the results that arise from its exercise.

United States v. Doremus, 249 U.S. 86 (1919) (tax on persons dispensing drugs):

> [F]rom an early day the Court has held that the fact that other motives may impel the exercise of federal taxing power does not authorize the courts to inquire into that subject. If the legislation enacted has some reasonable relation to the exercise of the taxing authority conferred by the Constitution it cannot be invalidated because of the supposed motives which induced it.

United States v. Kahriger, 345 U.S. 22 (1953) (ten per cent tax on all wagers accepted plus a special tax of $50 a year).

[22] *Bailey v. Drexel Furniture Co.*, 259 U.S. 20 (1922) (ten per cent tax on net profits of company employing children under 14 or children between 14-16 for more than eight hours a day); *Hill v. Wallace*, 259 U.S. 44 (1922) (twenty cent per bushel tax on futures contracts in grain except those of an approved board trade which approval involves compliance with many detailed regulations); *U.S. v. Constantine*, 296 U.S. 287 (1935) (special excise tax of $1000 on liquor dealers who operate their businesses in violation of state or local law).

[23] *United States v. Butler*, 297 U.S. 1 (1936). Cf. *Steward Machine Co. v. Davis*, 301 U.S. 548 (1937); *Helvering v. Davis*; 301 U.S. 619 (1937).

Another example of the use of the power to tax in conjunction with the power to regulate commerce (in addition to that provided in the text at note 18) is the tax on coal sold in excess of the prices established under the Bituminous Coal Act of 1937 which was upheld in *Sunshine Anthracite Coal Co. v. Adkins*, 310 U.S. 381 (1940). In its opinion the Court said:

> Clearly this tax is not designed merely for revenue purposes. In purpose and effect it is primarily a sanction to enforce the regulatory provisions of the act...Congress may impose penalties in aid of the exercise of any of its enumerated powers. The power of taxation...may be utilized as a sanction for the exercise of another power which is granted it.

Indirect taxes may not be imposed on some of the property or activities of the States.[24] Whether municipalities could be required to pay disincentives, in the form of taxes on sewage treatment plant effluents, for example, is not clear. Potential difficulties could be avoided by levying the tax on those using the state governmental facility and requiring the municipality to collect and account for the tax.[25]

Indirect taxes must be levied uniformly throughout the U.S.[26] This requirement means that the tax must be in general operation throughout the U.S., not that there may not be differences in taxes based on different circumstances.[27] But the due process guaranty of the Fifth Amendment requires that tax exemptions and classifications may not be arbitrary.[28]

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[24] New York v. United States, 326 U.S. 572 (1946). Which activities and properties are immune from federal taxation and which are not is unclear. In Brush v. Commissioner of Internal Revenue, 300 U.S. 352 (1937), New York City's water system was held immune from federal taxation on the grounds that it was an adjunct of the government's functions. In New York v. United States the state's sales of bottled mineral water were held not immune.

[25] Wilmette Park District v. Campbell, 338 U.S. 411 (1949).

[26] Article 1, section 8, clause 1.

[27] Knowlton v. Moore, 178 U.S. 41 (1900).

> The question always is, when a classification is made, whether there is any reasonable ground for it, or whether it is only and simply arbitrary, based upon no real distinction and entirely unnatural...If the classification be proper and legal, then there is the requisite uniformity...

Nichol v. Ames, 173 U.S. 509 (1899). Cf. Fernandez v. Wiener, 326 U.S. 340 (1940).

[28] Steward Machine Co. v. Davis, 301 U.S. 548 (1937). In upholding the tax imposed by the Social Security Act on employers of more than eight or more, which also did not apply to private domestic service of agricultural labor, Mr. Justice Cardozo wrote:

> The Fifth Amendment unlike the Fourteenth has no equal protection clause...But even the states, though subject to such a clause, are not confined to a formula of rigid uniformity in framing measures of taxation...They may tax some kinds of property at one rate, and others at another, and exempt others altogether...They may lay an excise on the operations

These cases lead to the conclusion that Congress could enact disincentives measures under its power to lay and collect taxes. The requirement that the taxes be "uniform" would require care in structuring the bases and rates of the disincentives, but no more so than would be required by the guaranty of due process. If Congress wished to apply the law to public as well as private entities the doctrine of immunity of state governmental instrumentalities from federal taxation would have to be taken into account.

Limitations on Potential Federal Disincentives Programs

In addition to the limitations on the exercise of the commerce power or the taxing power imposed by the due process guaranty and the requirement for compensation for private property taken for public purposes contained in the Fifth Amendment, that amendment and the Fourth Amendment contain limitations applicable to the implementation of disincentives plans adopted by Congress.[29]

> of a particular kind of business, and exempt some other kind of business closely akin thereto...If this latitude of judgment is lawful for the states, it is lawful, a fortiori, in legislation by the Congress, which is subject to restraints less narrow and confining...The classifications and exemptions directed by the statute now in controversy have support in considerations of policy and practical convenience that cannot be condemned as arbitrary. The classifications and exemptions would therefore be upheld if they had been adopted by a state and the provisions of the Fourteenth Amendment were invoked to annul them...The act of Congress is therefore valid, so far at least as its system of exemptions is concerned, and this though we assume that discrimination, if gross enough, is equivalent to confiscation and subject under the Fifth Amendment to challenge and annulment.

[29] Professor Philip Soper has commented:

> Even though particular environmental objectives may be within the reach of congressional regulatory power, the means by which those objectives are attained must still comply with specific constitutional limitations imposed by various provisions of the Bill of Rights. In fact, the potential clash between federal regulatory schemes in the environmental context and individual constitutional safeguards promises to be a more active area for future judicial attention than the logically prior question of congressional power for at least two reasons. First, the extreme breadth of congressional power in this area makes it likely that political rather than

Fifth Amendment: Self-Incrimination -- Most proponents of disincentive schemes have come to the conclusion that self-monitoring and self-reporting of emissions or discharges or other conduct subject to the requirement to make payments would be more efficient ways of determining the basis of the periodic payments than regular monitoring and supervision by governmental officials, so long as those officials conducted spot checks to assure the accuracy of the monitoring and reporting.

The Fifth Amendment, however, provides: "Nor shall any person... be compelled in any criminal case to be a witness against himself..." Person, for purposes of the privilege against self-incrimination, does not include a corporation.[30] In a 1948 case the Supreme Court held that the privilege may not be invoked to bar the use of records required by Congress to be kept concerning transactions of a regulated business activity.[31] This so-called "required records" doctrine is still valid so long as those required to keep the records are not "a highly selective group inherently suspect of criminal activities."[32]

A recent case applying this doctrine to a law which requires reporting analogous to that presently called for under the Federal Water Pollution Control Act Amendments of 1972 and the Clean Air Act and which would be required under most disincentive programs, is Califor-

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> constitutional considerations will prove to be the limiting factor in determining the proper federal-state balance, thus avoiding the need to probe judicially the ultimate limits of federal authority. Second, the imposition of governmental controls, whether state or federal, over essentially private activities raises issues that have received a considerably greater degree of respectful judicial attention in recent years than is the case with respect to claims that Congress has invaded areas reserved to the states by the Tenth Amendment.

Soper, supra note 1, at I.B.

[30] Wilson v. United States, 221 U.S. 361 (1911); George Campbell Painting Corp. v. Reid, 392 U.S. 286 (1968).

[31] Shapiro v. United States, 335 U.S. 1 (1948):

> [The privilege]...cannot be maintained in relation to "records required by law to be kept in order that there may be suitable information of transactions which are the appropriate subjects of government regulation and the enforcement of restrictions validly established." Davis v. United States, 328 U.S. 582 (1946).

[32] Marchetti v. United States, 390 U.S. 39 (1968).

nia v. Byers.[33] The case upheld the California vehicle code provisions that the driver of any vehicle involved in an accident resulting in damage to any property including vehicles must immediately stop the vehicle at the scene of the accident and locate and notify the owner or person in charge of such property of the name and address of the driver and owner of the vehicle involved.[34] Even though it may not seem so to the Jonathan Byers' of the world, four of the justices of the Supreme Court said that disclosing automobile accidents in this way does not entail the kind of substantial risk of self-incrimination that registration and reporting requirements for members of the Communist Party, gamblers, owners of proscribed fire arms, and dealers in drugs do.[35] Chief Justice Burger's opinion stated: "An organized society imposes many burdens on its constituents [including that] industries must report periodically the volume and content of pollutants discharged into our waters and atmosphere. Comparable examples are legion," he said, citing the Shapiro case, and the "tension between the State's demand for disclosures and the protection of the right against self-incrimination... must be resolved in terms of balancing the public need on the one hand and the individual claim to constitutional protections on the other..."[36]

The decision in California v. Byers does not clearly authorize the use of the kind of information which would be generated by self-reporting in disincentives programs for criminal prosecutions since only three other justices joined the Chief Justice's opinion and four justices dissented from the Court's judgment upholding California's hit-and-run statute. But the opinion does indicate the Court's current analytical approach.

Fourth Amendment: Administrative Searches -- The spot checks of monitoring equipment referred to above or other inspections for the purposes of checking compliance with regulatory requirements must be conducted in accordance with the Fourth Amendment. That amendment provides:

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and

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[33] 402 U.S. 424 (1971).

[34] California Vehicle Code, §20002(a)(1).

[35] These are the people who are in the highly selective groups inherently suspect of criminal activities category discussed in the Marchetti case, and in Grosso v. United States, 390 U.S. 62 (1968), Haynes v. United States, 390 U.S. 85 (1968), and in Albertson v. Subversive Activities Control Board, 382 U.S. 70 (1965).

[36] 39 U.S. Law Week 4579 at 4580.

> seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Until recently the Fourth Amendment was not interpreted to preclude government officials entering premises without warrants to check for violations of health or safety ordinances.[37] But in 1967 the Supreme Court held unconstitutional San Francisco's ordinance giving city employees the right, upon presentation of proper credentials but without securing a search warrant, to enter any premises in the city pursuant to a duty imposed on them by the municipal code.[38] A person cannot be required to admit a health inspector on an annual routine inspection to determine compliance with the housing code without a warrant because "except in certain carefully defined classes of cases, a search of private property without proper consent is 'unreasonable' unless it has been authorized by a valid search warrant." In a companion case[39] the Court applied Camara to invalidate Seattle's ordinance authorizing a warrantless inspection of commercial premises for purposes of ascertaining possible fire hazards. The Court did, however, sanction the use of warrants to inspect particular premises issued on the basis that the circumstances in an area including the premises satisfied reasonable legislative or administrative standards for conducting an "area inspection."[40]

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[37] In Frank v. Maryland, 359 U.S. 360 (1959), the Supreme Court upheld a $20 fine prescribed by a municipal ordinance for refusing to allow a Commissioner of Health daytime entrance to a house in which he had cause to suspect a nuisance (rats). Ohio ex rel. Eaton v. Price, 364 U.S. 263 (1960).

[38] Camara v. Municipal Court of the City and County of San Francisco, 387 U.S. 523 (1967).

[39] See v. City of Seattle, 387 U.S. 541 (1967).

[40] Justice White wrote, in the Camara opinion:

> There can be no ready test for determining reasonableness other than by balancing the need to search against the invasion which the search entails. [A] number of persuasive factors combine to support the reasonableness of code-enforcement area inspections. First, such programs have a long history of judicial and public acceptance. Second, the public interest demands that all dangerous conditions be prevented or abated, yet it is doubtful than any other canvassing would achieve acceptable results...Finally, because the inspections are neither personal in nature nor aimed at the discovery of evidence of crime, they involve a relatively limited invasion of the urban citizen's privacy.

The Court also stated that its decision was not intended to foreclose warrantless searches in emergencies, e.g., the seizure of unwholesome food or health quarantines. The case thus requires that warrants be obtained to conduct administrative searches but modifies the probable cause requirement that the warrant be based on the inspector's belief that a particular dwelling contains a code violation.

Subsequent decisions have helped delineate the circumstances when warrantless administrative searches are permissible. In Colonnade Catering Corp. v. United States[41] the Supreme Court held that evidence obtained by federal agents who entered Colonnade's liquor storage area forcibly without a warrant could not be used in a trial.[42] In doing so, however, the Court indicated that historically warrantless inspections of businesses involved in the liquor industry were not deemed unreasonable and that Congress could enact standards setting forth rules governing inspection procedures. In United States v. Biswell[43] the Court held that a warrantless search based on the authorization of a statute was constitutional if the inspection was part of a regulatory program which promoted urgent federal interests and, more importantly, if the law could not be effectively enforced unless warrantless inspections were permissible.

The law involved in this case was the federal Gun Control Act. Unlike the potential building code violations discussed in See v. City of Seattle,[44] violations of the program of licensing firearms dealers can be quickly concealed and thus unnanounced spot checks are essential to effective enforcement.[45] The Court also pointed out that such checks were relatively insignificant intrusions on privacy and were to be expected in heavily regulated businesses.

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[41] 397 U.S. 72 (1970).

[42] The judicially implied sanction to enforce compliance with the Fourth Amendment is the so-called exclusionary rule, i.e., that evidence seized in violation of the Amendment may not be used in a prosecution. Weeks v. United States 232 U.S. 383 (1914); Mapp v. Ohio, 367 U.S. 643 (1961).

[43] 406 U.S. 311 (1972).

[44] Supra, note 39.

[45] Warrants are obtained for administrative searches only after consent has been refused. If warrants were required before inspecting for illegal firearms, the dealer could simply refuse consent to the warrantless search and conceal the firearms while the inspector was away obtaining the necessary warrant.

It is possible, after the Biswell decision, that administrative inspections to check compliance with the environmental standards would not often have to be preceded by warrants. The language of the FWPCA Amendments of 1972 and the Clean Air Act is not significantly different from that of the Gun Control Act of 1968.[46] Even if warrants were required prior to inspections pursuant to a disincentive program it is likely that they could be issued on the basis of satisfying conditions calling for area inspections, as in Camara and See.[47]

Separation of Powers: Delegation of Legislative Power -- Although it would be possible -- and perhaps preferable -- to have the details of disincentive programs, e.g., the incidences and rates of charges, spelled out in legislation it is more likely that Congress would delegate these tasks. It is a maxim of constitutional law that powers delegated to Congress (in Article I) may not be further delegated[48] but the maxim overstates the scope of the actual limitation. In the early days of the New Deal legislation the Supreme

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[46] The Gun Control Act authorizes entry "during business hours... to the premises (including places of storage) of any firearms or ammunition importer, manufacturer, dealer or collector,...for the purpose of inspecting or examining...records or documents required to be kept...and...any firearms or ammunition..." 18 U.S.C. §923(g) (1970).

The Clean Air Act states that officials "shall have a right of entry to, upon, or through any premises in which an emission source is located...[and] may at reasonable times have access to and...inspect any monitoring equipment or method...and sample any emissions..." 42 U.S.C. §1857c-9(a)(2) (1970).

[47] Soper, supra note 1, at I.B. 1.

Soper has suggested that "it is possible that pollution control schemes, e.g., a system of effluent charges which depends on reliable self-monitoring by the affected polluter, can be enforced only by random and frequent inspections. Whether such inspections must also occur unannounced depends on the ease with which the polluter, in the short period following a refusal to permit the search and the securing of a warrant, can remedy the unlawful pollution practice or disguise tampering with self-monitoring equipment." The pollution practice would not have to be unlawful for this to be true, of course.

[48] Delegata potestas non potest delegari.

Court invalidated some provisions of the National Industrial Recovery Act of 1933 on grounds that Congress had insufficiently defined its policy objectives and standards which the agency to which the power was delegated should follow in attaining those objectives.[49] But broad delegations of power have since been upheld, so long as policies and standards are clearly articulated. In *Yakus v. United States*,[50] for example, the Court sustained the provisions of the Emergency Price Control Act which authorized the Administrator of the Office of Price Administration to fix fair and equitable prices. After reciting that Congress' purposes were stated in section 1 and the standards in section 2, the Court stated:

> The Act is thus an exercise by Congress of its legislative power. In it Congress has stated the legislative objective, has prescribed the method of achieving that objective -- maximum price fixing -- and has laid down standards to guide the administrative determination of both the occasions for the exercise of the price-fixing power, and the particular [range of] prices to be established.[51]

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[49] *Panama Refining Co. v. Ryan*, 293 U.S. 388 (1935); *Schecter Poultry Corp. v. United States*, 295 U.S. 495 (1935).

[50] 321 U.S. 414 (1944).

[51] *Yakus v. United States*, *supra*, note 40. The Court's opinion stated further:

> The Constitution as a continuously operative charter of government does not demand the impossible or the impractible. It does not require that Congress find for itself every fact upon which it desires to base legislative action or that it make for itself detailed determinations which it has declared to be prerequisite to the application of the legislative policy to particular facts and circumstances impossible for Congress itself properly to investigate. The essentials of the legislative function are the determination of the legislative policy and its formulation and promulgation as a defined and binding rule of conduct...These essentials are preserved when Congress has specified the basic conditions of fact upon whose existence or occurrence, ascertained from relevant data by a designated administrative agency, it directs that its statutory command shall be effective. It is no objection that the determination of facts and the inferences to be drawn from them in the light of the statutory standards and declaration of policy call for the exercise of judgment, and for the formulation of subsidiary administrative policy within the prescribed statutory framework.

State Power to Adopt Disincentives

Congress may only exercise powers specifically granted it in the Constitution plus the power to make laws "necessary and proper for carrying into execution" the powers enumerated in Article I, section 8, and other powers vested by the Constitution in the U.S. government or a department or officer of it.[52] Powers not delegated to the United States by the Constitution, nor prohibited by it to the states,[53] are reserved to the states respectively, or to the people.[54]

For understanding the powers of a state -- and the state constitutional limitations on them-- it is imperative to examine the constitution of the particular state involved and the cases construing it.[55] One generalization is possible: with respect to delegation of legislative power to regulate, state courts have generally analyzed the issue as the federal courts have, with similar results.[56]

Limitations on State Powers

So far as the U.S. Constitution's limitations are concerned, the provisions of the Fourth and Fifth Amendments discussed above which apply to Congress have been applied by the Supreme Court to the states by "incorporating" them into the Fourteenth Amendment's requirement that no state "deprive any person of life, liberty, or property, without due process of law."[57] The Fifth Amendment's due process guaranty imposes virtually the same constraints as does the Fourteenth Amendment's.[58] The Fourteenth Amendment's Equal Protection Clause precludes arbitrary classifications; these are tested by standards comparable to those under the Fifth Amendment's due process guaranty.[59]

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[52] U.S. Constitution, Article I, section 8, clause 18.

[53] For example, by Article I, section 10, and Amendments XIII, XIV, and XV.

[54] U.S. Constitution, Amendment X.

[55] For analyses of the constitutionality of employing effluent charges under state powers to regulate and to tax, See Lyman, *supra*, note 1, chapters II and V, respectively.

[56] Jaffe and Nathanson, *Administrative Law: Cases and Materials* (3rd edition, 1968) 68; Lyman, *supra*, note 1, chapter IV. The law of the particular jurisdiction should be checked, however.

[57] The requirement that compensation be provided for taking private property for public purposes was applied to the states by *Chicago, B. & O. R.R. v. Chicago,* 166 U.S. 226(1897). *Malloy v. Hogan,* 378 U.S. 1(1964), applied the Fifth Amendment privilege against self-incrimination and *Mapp v. Ohio*, 367 U.S. 643(1961), applied the exclusionary rule prohibiting the use in courts of evidence obtained in searches which violate the Fourth Amendment.

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[58] Goldblatt v. Hempstead, 369 U.S. 590 (1962):

> The term "police power" connotes the time-tested conceptional limit of public encroachment upon private interests. Except for the substitution of the familiar standard of "reasonableness," this Court has generally refrained from announcing any specific criteria. The classic statement of the rule in Lawton v. Steele, 152 U.S. 133...(1894) is still valid today: "To justify the state in...interposing its authority in behalf of the public, it must appear -- First, that the interests of the public...require such interference; and, second, that the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals." Even this rule is not applied with strict precision, for this Court has often said that "debatable questions as to reasonableness are not for the courts but for the Legislature..."

[59] Supra, notes 27-28. "In the general area of tax and police power regulating legislation the Court has exercised a minimal review under the equal protection clause by employing the test of rationality coupled with a presumption in favor of the statute. This approach is in contrast to the Court's decisions invalidating classifications based on alienage, race, and religion." Kauper, Constitutional Law: Cases and Materials (3rd edition, 1966), 1288.

Cf. Soper, supra, note 1, at I.B.4.b.: "For the most part, legislative regulation of environmentally harmful activities of individuals or business concerns should not be vulnerable to claims that others 'similarly situated,' have not been dealt with equally harshly. In this respect...environmental regulation resembles economic regulation and should similarly require only a rational relationship to a legitimate legislative objective in order to withstand attack on equal protection grounds. Familiar principles in this context -- a statute is not invalid under the Constitution because it might have gone farther than it did [Miller v. Watson, 236 U.S. 373 (1915)]; a legislature need not 'strike at all evils at the same time' [Semler v. Dental Examiners, 294 U.S. 608 (1935)]; 'reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the Legislative mind' [Williamson v. Lee Optical Co., 348 U.S. 483 (1955)] -- should operate to provide wide leeway for legislative initiatives. Recent cases that have considered the issue in the environmental context have had little trouble rejecting the equal protection argument [Chicago Allis Mfg. Corp. v. Metropolitan Sanitary District, 52 Ill. 2d 320, 288 N.E.2d 436 (1972)]."

In addition to these limitations on the exercise of state powers, the existence of congressional powers to regulate commerce and levy taxes and Congress' exercise of these powers have called for Supreme Court decisions resolving conflicts in the exercise of these concurrent powers. To the extent a conflict exists, of course, the federal power prevails.[60]

If a state attempts to exercise its police power over subject matters which Congress could regulate under the Commerce Clause and which "are in their nature national, or admit only of one uniform system, or plan of regulation"[61] the Supreme Court is likely to hold that the subject matters require exclusive legislation by Congress and the state laws will be invalidated.[62] If the subject matter is not of this nature the Court is likely to uphold state or local regulations if they do not impose an undue burden on interstate commerce.[63] The most recent statement of the extent to which a state may interfere with interstate commerce is phrased in terms of accommodating competing federal and state interests:

> Although the criteria for determining the validity of State statutes affecting interstate commerce have been variously stated, the general rule that emerges can be phrased as follows: where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will, of course, depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on

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[60] Article VI, clause 2 of the U.S. Constitution provides:

> This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

[61] Cooley v. Board of Wardens of Philadelphia, 53 U.S. (12 How.) 299 (1951).

[62] E.g., Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520 (1959); cf. Northern States Power Co. v. Minnesota, 405 U.S. 1035 (1972), affirming 447 F.2d 1143 (8th Cir., 1971); City of Burbank v. Lockheed Air Terminal, Inc., 411 U.S. 624 (1973).

[63] In Huron Portland Cement Co. v. City of Detroit, 362 U.S. 440 (1960), the City of Detroit's ordinance requiring a company operating ships in interstate commerce to install smoke abatement equipment was upheld.

interstate activities.[64]

If Congress has enacted legislation in a field then that legislation and the history of its enactment must be examined to determine whether Congress "intended to occupy the field."[65] If the statute is clear, as some in the environmental area are,[66] then the extent of pre-emption is also clear. Often, however, it is not clear, and then the extent of tolerable state interference with federal laws must be analyzed on a case by case basis.[67] "Innumerable cases have either sustained or invalidated state regulation challenged as invalid because of the impact of federal commerce legislation. Each is a separate problem involving the history, terms, purposes and effect of particular legislation and has little precedent value outside the particular area of regulation involved."[68]

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[64] Pike v. Bruce Church, Inc., 397 U.S. 137 (1970). For an excellent opinion analyzing the extent of state authority to burden interstate commerce where Congress has not legislated, see the December 1973 opinion of the Oregon Court of Appeals in American Can Company v. Oregon Liquor Control Commission, 4 ELR 20213, Appendix E.

[65] Pennsylvania v. Nelson, 350 U.S. 497 (1956).

[66] E.g., 33 U.S.C. §1370; 42 U.S.C. §1857d-1. The latter section, from the Clean Air Act, provides:

> Except as otherwise provided in sections 1857f-6a, 1857f-6c (c)(4) and 1857f-11 of this title (preempting certain State regulation of moving sources) nothing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 1857c-6 or section 1857c-7 of this title, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

[67] In Hines v. Davidowitz, 312 U.S. 52 (1941), the Supreme Court characterized the history of its efforts and its function in reviewing such conflicts as follows:

> This Court, in considering the validity of state laws in the light of treaties or federal laws touching the same subject, has made use of the following expressions: conflicting; contrary to; occupying the field; repugnance; difference; irreconciliability; inconsistency; violation; curtailment; and interference. But none of these expressions provides an infallible constitutional test or an exclusive constitutional yardstick. In the final analysis, there can be no one crystal clear distinctly marked formula. Our primary function is to determine whether, under the circumstances of this particular case, Pennsylvania's law stands as an obstacle to the accomplishment and execution of the full purposes and objective of Congress.

The extent of federal pre-emption in the environmental statutes administered by the Environmental Protection Agency is thus most appropriately discussed in the next subsection.

AUTHORITY FOR DISINCENTIVES UNDER FEDERAL ENVIRONMENTAL LAWS

Introduction

This subsection analyzes the statutes administered by the U.S. Environmental Protection Agency to determine whether any of their provisions would authorize the Environmental Protection Agency to adopt disincentives (particularly governing toxic or hazardous substances) and whether state adoption of disincentives in the fields regulated by these statutes is pre-empted by any of their provisions.

Federal Water Pollution Control Act

Legislative History -- When the legislation which later became the Federal Water Pollution Control Act Amendments of 1972[69] was first under consideration in the Senate, Senator William Proxmire proposed an amendment from the floor which employed the concept of effluent charges, as contained in his earlier proposed bill, S. 2696, 92nd Congress, 2nd Session. After debate, the objections of Senator Edmund Muskie, Chairman of the Air and Water Pollution Subcommittee and prime sponsor of the original legislative package, carried the body and the amendment was defeated. During House consideration, Representative Heinz of Pennsylvania offered a nearly identical amendment, which the Chair ruled nongermane and which the lower house therefore did not consider. The discussion that follows examines these congressional actions for their preclusory legal impact on EPA and state efforts to use pollution charges to achieve compliance with FWPCA requirements.

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[68] Lockhart, Kamisar and Choper, Constitutional Law: Cases, Comments, Questions (3rd edition, 1970), 337. For a helpful analysis of recent pre-emption cases in three environmental areas (nuclear power plants, airport noise regulation and oil spills), *see*, Soper, *supra*, note 1, at II.B.1.a.

[69] Pub. L. No. 92-500; 86 Stat. 816; 33 U.S.C., §1251 *et seq*.

A point of departure is the relevant language of Sutherland on *Statutory Construction*.[70] "Generally the rejection of an amendment indicates that the legislature does not intend the bill to include the provisions embodied in the rejected amendment." Six federal cases are cited in support of this proposition, four from the United States Supreme Court, which amplify and qualify this broad rule.[71] The preclusory effect of such rejection can be reckoned with greatest certainty where the amendment offers substitute language for provisions already within the proposed bill. Where, as here, the concept and language offered as amendment are entirely outside the four corners of the bill to be amended, it is more difficult to assess the impact of rejection. In such circumstances, history in committee and other extrinsic evidence must be examined to determine the extent to which the concept and language contained in the amendment were specifically omitted from the draft bill. In addition to testing the range of consideration given to the ideas contained within the amendment, it is useful to examine the specificity and comprehensiveness of the amendment itself.

The Proxmire amendment[72] -- Senator Proxmire's floor amendment stressed that its purpose was "to supplement the enforcement procedures of this Act," and in no way did it seek to have effluent charges supplant the regulatory powers given by the Act. In language as well as concept it was an add-on, and therefore no section of the adopted legislation can be said to precisely contain the Senate's resolution of the issues it contained. Nor was any section of the legislation adopted in lieu of it. The amendment proposed a schedule of national effluent charges for all discharges which "detract from the quality of the water for municipal, agricultural, industrial, recreational, sport, wildlife, and commercial fish uses." Certain deletrious discharge substances were named, but additional ones could be enumerated by regulation. A fee schedule for the enumerated substances had to be prescribed by June 30, 1972. Misdemeanor penalties were provided for willful violation of regulations promulgated pursuant to the section and the U.S. District Courts were given power to enjoin violations as well. All revenues collected were to be deposited in a dedicated fund which could be spent without further congressional appropriation action. Regional water pollution control agencies were specifically granted authority to impose a more rigorous schedule of charges.

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[70] J. Sutherland, *Statutory Construction*, section 48.18, entitled "Legislative Action on Proposed Amendments to a Bill."

[71] *Lapina v. Williams* 232 U.S. 78, 58 L.Ed. 515, 34 S.Ct. 196 (1914); *United States v. Pfitsch*, 256 U.S. 547, 551, 65 L.Ed. 1084, 41 S.Ct. 569 (1921); *United States v. Great Northern R. Co.*, 287 U.S. 144, 155, 77 L.Ed. 223, 53 S.Ct. 28(1932); *Norwegian Nitrogen Products Co. v. United States*, 288 U.S. 294, 306, 77 L.Ed. 796, 53 S.Ct. 350 (1933); *J.W. Ould Co. v. Davis*, 246 F. 228 (C.C.A. 4th, 1917); *Madden v. Brotherhood & Union of Transit Employees of Baltimore*, 147 F.2d 439 (1945).

[72] The following discussion is based on the *Congressional Record of Proceedings and Debates of the 92nd Congress, 1st Session*, vol. 117, No. 164, for Tuesday, November 2, 1971, pp. S17425-32.

In floor debate, Senators Proxmire and Muskie clashed repeatedly. The amendment's author argued that economic disincentives such as those embodied in his proposal were necessary to insure compliance with the FWPCA timetable. To Senator Muskie's chief objection, that establishing such a charges schedule might be mistaken for selling a license to pollute, Proxmire responded that if the charges were in all cases higher than the polluter's cost of abatement, they would not constitute such a license. Muskie stressed that he had long been familiar with proposals for effluent charges, had personally inspected the West German systems that use charges, and had discussed their merits and drawbacks adequately in his subcommittee. In effect, he was establishing legislative history aimed at showing that not only should the Senate turn back Proxmire's charges amendment, but that in fact the sub- and full committees had rejected such an approach in their deliberations.

This earlier rejection did not constitute Muskie's only angle of attack. He seized upon the amendment's use of the word "revenues" to characterize the proposal as one calling for a tax, and criticized the enforcement abilities of the IRS. Beyond that, Muskie posed three problems to which he said insufficient solutions had been offered: (1) how to make charges sufficiently "uniform" to comply with constitutional requirements for taxes; (2) how to fix the basis for assessment; and (3) how to create constitutionally a dedicated (trust) fund in a revenue measure. Also, he argued, the amendment would impose a penalty if piggybacked upon user fees already extant. Only in cases of direct discharges, Muskie said, would there be a disincentive to dump untreated or undertreated wastes. Compounding the uncertainty present in the three conceptual questions above were two nagging doubts about feasibility: how to guarantee that charges will always exceed specific abatement costs, and how, if revenues were being raised, to avoid having revenue flow become the motive force behind the charges since effective charges that curtailed dumping would theoretically yield decreasing revenue over time.

Muskie viewed the Proxmire amendment as opening the way to "unacceptable enforcement compromises," and further he believed that even if the handicaps facing a charges scheme were overcome, they would merely accomplish a "marginal task." As an additional argument to persuade his colleagues to reject the Proxmire amendment, Muskie observed, "[t]he bill already...does a great deal of what the Senator from Wisconsin proposes." He argued that the Proxmire amendment was duplicative insofar as the proposed legislation provided for payment of user charges by industrial dischargers to municipal sewage treatment plants and encouraged regionalization of pollution abatement schemes. This line of argument cuts against Muskie's earlier attempt to create legislative history by citing previous committee rejection of the Proxmire ideas, and is key to understanding the limited effect of the rejection of the amendment; Sutherland suggests that the general rule that rejection expresses the legislature's intention not to incorporate an amendment's provisions may not be controlling where "such rejection may occur because the bill in substance already includes these provisions."[73] Although this is not the case here, Senator Muskie's remarks complicate the evaluation of the legislative history.

The two legislators skirmished further on whether the major bill or the amendment would require a larger enforcement bureaucracy. Proxmire again characterized his amendment as piggybacking upon tax collection. Muskie countered by arguing that in order to have a fairly based tax it would be necessary to link specific chemical discharges with specific levels of damage to water quality. Not a single witness before his committee could suggest how the vast mass of regulatory data could fairly be collected, assessed and processed into a schedule of charges, Muskie alleged.

The exchange then shifted to the question of technology assessment and judging when industry was acting in good faith to seek out and apply "best available technology." Muskie asked Proxmire how a charge would be calculated if no technology was available above whose marginal cost the effluent charge would be established. Proxmire responded by arguing that in such instances the magnitude of the charge would be based on environmental damage avoided. Muskie commented in response to Proxmire's shifting the charge's conceptual basis: "This is a new factor introduced in this subject this afternoon. That has never been suggested in any hearings I have conducted. It was always geared to the cost of cleanup." Muskie added that damage assessment is quite difficult and little damage information is available. Proxmire, without presenting much evidence, responded,"...we know it can be worked out."

The colloquy shifted once again, with Proxmire contending that it would take a minimum of three and one half years under the S. 2770 timetable for regional pollution control agencies to organize, to develop cleanup plans, and to have such plans approved by EPA. He believed that requiring charges to be imposed by June 30, 1972, as per his amendment, would produce quicker pollution abatement.

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[73] Sutherland, supra, note 70 at 224.

Muskie responded that the calendar S. 2770 established was appropriate for the reasoned analysis that would have to support any control program and further, that the evaluations necessary for a good effluent charge program could not be completed as quickly as Proxmire contended.

The suggestion above that in rejecting this amendment the Senate intended only a narrow preclusion is buttressed by the floor remarks of Senator Buckley (R-C, NY), who, while opposing "the specific language" which Proxmire proposed, felt that "the concept of a tax on the discharge of pollutants is not inconsistent, nor would it set back the objectives of the bill." Further, Buckley urged Proxmire to continue to press forward with effluent charges. Senators Percy and Humphrey both endorsed the amendment, but not in ways amplifying the issues here. Senator Baker opposed the amendment with a negative characterization: "I think that imposing a tax or user fee on the right to pollute, no matter whether it is a little or a lot, is also not the right way to approach it...." Proxmire countered by stressing the enforcement history of tax measures, saying that he doubted that the Refuse Act of 1899 would have lain dormant for so long had it been a tax act. When the voice vote was called, Proxmire stated that he knew the committee was in opposition, and expected the defeat.

The Heinz amendment -- On March 29, 1972, Representative Heinz offered an amendment on the House floor to the House version of the FWPCA.[74] Almost identical to the Proxmire amendment, the Heinz proposal allowed a longer grace period before enforcement, but included municipal sewage within the schedule of effluent charges. Another modification provided for delayed rebating of 50 per cent of the effluent charges paid by any polluter who installed or altered abatement equipment to comply with the law's standards. An upper limit on the rebate was set at full compensation of abatement costs.

No sooner had this amendment been introduced than Congressman Harsha of Ohio reserved a point of order against it, allowing floor debate to continue, but allowing Harsha to cut it off at any point by calling for a ruling from the Chair. Arguing much as Proxmire had, Heinz alleged that effluent charges would be an abatement incentive, and would shift some of the cleanup costs to polluters, thereby saving the taxpayers money and avoiding an enlarged federal enforcement bureaucracy. Little evidence was presented to support these assertions. The technology thus compelled into existence by effluent charges, Heinz asserted, would benefit the nation's economy and avoid the specter of unemployment.

Representative Harsha held fast on his point of order, that the amendment was nongermane in that three of its stated purposes were the raising of revenue, regulation of some aspects of business behavior, and encouragement of the sales of different product mixes, which three all lie outside pollution control and enforcement. Further, Harsha seized upon the word "revenue" to argue that the bill properly could only have originated in the House Ways and Means Committee. Finally, argued Harsha, the language creating and directing the expenditures from a fund are appropriations; these are likewise improper in legislative bills. As Senator Muskie had done, Congressman Don Clausen rose to suggest that section 317(a) of the bill overlapped the objectives of the amendment by requiring a study of alternative methods of financing, including a pollution abatement fund.

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[74] H.R. 11896.

To avoid the issue raised concerning approprate committee jurisdiction, Representative Heinz labeled his charges "user fees" and asserted that raising monies and expending them for treatment was essential to the functioning of the bill. He cited two House precedents allowing consideration of legislative bills containing the collection of tolls on freight, and of fines and penalties for offenses on public lands, both despite objections grounded in House Rules.

The Chair ruled that while points of order did not lie against the sections to which Heinz likened his amendment, they did with respect to his floor amendments. The Chair held that the questioned provisions of the amendment did provide for raising revenue, and for making an appropriation, and were therefore nongermane, rendering the amendment out of order and violative of House Rules, and it could not be considered further or voted upon.

Evaluation of Congress' preclusory intent -- This recitation of the floor debate is required in order to test the force which a court interpreting the FWPCA would assign to the rejection of the Proxmire and Heinz amendments. It is possible to conclude that the latter failed for reasons wholly unrelated to a consideration on the merits, and a case can be made that the former was not so totally rejected as to preclude federal administrative adoption of effluent charges. Rather than to hold the Senate voice vote as a flat and absolute rejection of effluent charge schemes, it seems from the positions taken and the provisions which received attention in floor debate that Congress rejected something far narrower. The constant discussion of the measure in taxing-revenue-IRS terms indicates that chief among the opponents' objections to the amendment was a belief that it improperly involved the Congress' taxing power while at the same time failing to meet the constitutional uniformity test for revenue legislation. As noted above, it was for precisely this reason that the House of Representatives failed to consider Rep. Heinz' parallel amendment.

Second, the senators questioned the legality of incorporating a trust fund provision in a general revenue measure. When coupled with authorization for non-appropriated spending beyond the reach of Congress' power of the purse, the provisions became so offensive that a rather persuasive argument emerges that the Senate, too, might have rejected the Proxmire amendment without reaching the merits of effluent charge schemes.

Third, it is necessary to give some credence to the argument employed by Senator Muskie that the amendment was somewhat duplicative of provisions already incorporated in the main bill. If so, Congress did not so much register its sentiment against effluent charges as in favor of the committee's package bill. In that view, an effluent charges scheme which was not revenue-oriented, and not in conflict with the FWPCA, might not be precluded by this vote from being applied administratively.

A countervailing argument derives from Senator Muskie's remarks during Senate floor debate that S. 2770 drew upon various sources including hearings and other proposed legislation. The fact that Senator Proxmire's effluent charges bill was before the committee and was not incorporated into the final draft is some evidence that Congress did intend to preclude the charges method of pollution control.

On balance, however, it seems that the stronger evidence is that preclusion was never fully and firmly expressed. It is worth nothing that rejection of the amendment came on a voice vote, which courts are not inclined to accept as binding statutory construction so rigidly as a rollcall vote. If the Senate had viewed effluent charges as a very serious threat to the integrity of the bill, it would have wished a more formal and definitive resolution of the issue.

As with grey areas in general, a deciding factor in divining Congressional intent may be the level of specificity which Congress has brought to bear in a particular decision-making process. First it should be said that the Proxmire amendment urged upon the Congress a regulatory method sufficiently unfocused in its author's mind that when he was vigorously challenged in debate, he could offer only the vaguest guides to standards to be employed in setting initial charge schedules. Failure to delineate the differences between charges, taxes, user fees, penalties, and civil fines did not help achieve specificity. When negative legislative actions are being asserted as precluding acts, they must be of sufficient clarity that ordinary ambiguities are avoided. Applying such a test here, the rejection of the Proxmire amendment did not, of itself, preclude application of effluent charges.

Statutory Provisions -- If Congress has neither specifically enacted effluent charges nor specifically precluded them, the next line of inquiry is whether any provisions of the Act would authorize administrative adoption of the charges.

Hazardous substances -- Section 311(b)(2) of the Act directs the Administrator of the EPA to develop and publish regulations designating as hazardous substances (other than oil) elements and compounds which, when discharged in any quantity into or upon the navigable waters of the U.S. or adjoining shorelines, or the waters of the contiguous zone, present an imminent and substantial danger to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, shorelines and beaches. Section 311(b)(1) declares U.S. policy to be "that there should be no discharges of oil or hazardous substances."

Section 311(b)(2)(B)(ii) provides that any person who between October 18, 1972, and October 18, 1974, discharges a hazardous substance which cannot be removed "shall be liable ... to the United States for a civil penalty per discharge established by the Administrator based on toxicity, degradability, and dispersal characteristics of such substance, in an amount not to exceed $50,000." If the discharge is willful, there is no limit to the amount so established. After this two year period the Administrator has discretion to impose a penalty for the discharge of a nonremovable hazardous substance either of not less than $500 nor more than $5,000 based on the toxicity, degradability and dispersal characteristics of the substance or "a penalty determined by the number of units discharged multiplied by the amount established for such unit under clause (iv) of this subparagraph..." Clause (iv) provides that the Administrator shall establish by regulation "a unit of measurement based upon the usual trade practice and, for the purpose of determining the penalty..., for each such unit a fixed monetary amount...not less than $100 nor more than $1,000 per unit. He shall establish such fixed amount based on the toxicity, degradability, and dispersal characteristics of the substance."

As yet no regulations with a list of hazardous substances has been promulgated under section 311(b)(2)(A) nor have any civil penalties been levied under section 311(b)(2)(B)(ii). The intent of Congress in enacting these provisions is clear from these excerpts from the report of the Senate Public Works Committee on S. 2270:

> ...The Committee was concerned that many hazardous substances cannot be cleaned-up by standard methods because they immediately dissolve in the receiving waters.
>
> These substances, the discharge of which may cause environmental disaster, could not be subject to any meaningful clean-up liability. A clean-up liability provision therefore would provide no incentive to carriers and handlers of these

> substances to exercise the great caution that such materials warrant.
>
> The Committee belives that the discharge of such substances should be subject to penalty even though clean up is not practicable. In this way, each carrier or handler evaluates the risk of discharge and determines whether or not thepotential penalty is worth the risk. Because the penalty to be imposed under this section should relate to the environmental hazard involved, the Committee determined that the Administrator should set the amount of penalty on the basis of the actual amounts of material released into the waste environment. The bill would establish a minimum fine of $50,000 and a limit per barrel fine of $5,000. The Administrator is expected by regulation to set the fine per barrel of discharge based on toxicity, degradability, and disposability of such substances.
>
> Because no outside limit is proposed the potential penalty would be the amount of substance involved times the amount of penalty set by the Administrator.[75]

This statement indicates that civil penalties for discharges of non-removable hazardous substances are to be levied in a way analogous to one means of imposing effluent charges, i.e., by basing them on the extent of social costs (or damages) imposed by particular discharges. However, unlike most effluent charges, the civil penalties proposed in section 311 are not keyed to differing water conditions in different basins. Further they are designed to punish illegal behavior and require either agency policing, or reliance upon reporting of violations. A charge scheme would normally involve routinized monitoring of effluents, and is a cost which can be reckoned by the polluter as a factor of doing business, rather than merely an incident of being caught. The history of section 311(b)(2)(B)(ii) shows that it was intended to be used in the event of short-life inadvertent or unavoidable spills, and was not designed to provide the Administrator with regular, on-going monitoring or enforcement powers. Section 311, which is cast in the language of penalties for offending behavior, does not provide authority for administrative adoption of a charges scheme applicable to hazardous substances.

Toxic pollutants -- Section 307 is the provision of the Act governing toxic pollutants. Toxic pollutants are defined (in section 502(13)) as "those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring." Pollutant, in turn, is defined (in section 502(6)) as "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water."

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[75] "Report of the Committee on Public Works," United States Senate, together with Supplemental Views, to accompany S. 2770, Report No. 92-414, 92nd Congress, 1st Session, October 28, 1971, at 66.

After the Administrator publishes a list of toxic pollutants he must publish proposed effluent standards or prohibitions for these pollutants which take into account the toxicity of the pollutants, their persistance, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms, and the nature and extent of the effect of the toxic pollutants on such organisms. Hearings must be held on these proposed standards prior to the ir promulgation. Any effluent standard promulgated shall be at a level the Administrator determines will provide an ample margin of safety and must designate the categories of sources to which it applies. After the effective date of any effluent standard or prohibition under section 307 it is unlawful for the owner or operator of an source to operate any source in violation of the standard or prohibition.

On December 27, 1973, the Environmental Protection Agency published proposed toxic pollutant effluent standards for nine pollutants (including aldrin, dieldrin, cadmium, mercury, cyanide and DDT).[76] A hearing was held in accordance with section 307(a)(2) on January 25, 1974 in Washington, D.C.

Although the criteria which section 307(a) requires the Administrator to take into account in formulating toxic pollutant effluent standards or prohibitions could serve as the basis for a charges system applicable to those pollutants, the section only authorizes a control strategy based on effluent standards or prohibitions and does not authorize the adoption of a charges system by the federal government.

General provisions — Section 501(a) authorizes the Administrator to prescribe "such regulations as are necessary to carry out his functions under this Act." This section cannot be construed to authorize the

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[76] 38 Fed. Reg. 35388. The nine substances covered by the proposed regulations are: aldrin, dieldrin; benzidine; cadmium; cyanide; DDD, DDE, and DDT; endrin, mercury; polychlorinated biphenyls; and toxaphene.

Administrator to promulgate regulations adopting effluent charges as a means for achieving the goals of the Act. Delegation of legislative authority requires more or less articulated standards governing the means for achieving the objectives of a piece of legislation and this section contains no guidelines which the Administrator is to follow in adopting charges. The section limits the Administrator's power to adopting those rules which are necessary to carry out "his functions" under the Act. It does not permit him more discretion by authorizing "appropriate" rules. An administrative officer may not extend the reach of an Act of Congress, nor impose additional or more stringent requirements for the granting of a permit, by regulation under a general statutory authorization to make rules.

Extent of Pre-emption -- Section 510 of the act provides that, unless expressly provided otherwise, nothing "shall preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce any standard or limitation respecting discharges of pollutants or any requirement respecting control or abatement of pollution." If an effluent standard or limitation is in effect under the FWPCA Amendments of 1972, however, no state or political subdivision may adopt or enforce any limitation or standard which is less stringent than the federal one. Section 301(b)(1)(C) reinforces this authority preserved for the states: prior to July 1, 1977, pollution sources must achieve not only effluent limitations which shall require the application of the best practicable control currently available as defined by the Administrator (or, for publicly owned treatment works, which shall be based upon secondary treatment as defined by the Administrator), but also "any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 510 of this title)...."

Nothing in section 307 expressly provides that states or political subdivisions may not adopt and enforce more stringent standards for or limitations on the discharge of toxic substances. Section 311 not only does not contain any language precluding or denying the right of states to adopt or enforce any limitation respecting discharges of hazardous pollutants but also specifically provides, in section 311(o)(2): "Nothing in this section shall be construed as preempting any State or political subdivision thereof from imposing any requirement or liability with respect to the discharge of oil or hazardous substances into any waters within such State." Nor do other applicable sections of the Act provide that states may not adopt more stringent standards or controls.

Control over water pollution, as congressional debates repeatedly indicate, has traditionally been exercised by states and their subdivisions. This fact, plus the normal judicial presumption in favor of sustaining state laws against claims they are pre-empted by federal law unless there is a clear expression of congressional intent to do so, helps explain why section 510 (and its analogues in other federal environmental statutes) so explicitly sets forth the extent of federal pre-emption. A Supreme Court decision (concerning Florida's authority to regulate oil tanker and terminal facilities equipment and to subject these tankers and facilities to unlimited liability without fault for damages and cleanup costs caused by oil spills) suggests that the states will be allowed substantial latitude for their own initiatives until and unless they clearly conflict with federal provisions in fact, not just in theory. In Askew v. American Waterways Operators, Inc.,[77] decided in April 1973, the Supreme Court unanimously held that Florida's law was not pre-empted by the Water Quality Improvement Act of 1970, which introduced the precedessor section to section 311 of the FWPCA Amendments of 1972.

The combination of these statutory provisions and the Supreme Court's decision in Askew leaves state legislatures ample room to adopt effluent charges if they wish to do so.

Conclusion -- There are no provisions of the Federal Water Pollution Control Act Amendments of 1972 which authorize the adoption of effluent charges by the Administrator of the Environmental Protection Agency. If there were such provisions, the legislative history of the defeat of Senator Proxmire's proposed amendment would not preclude their adoption by the Administrator. The Act does not pre-empt state laws which would impose effluent charges.

The Clean Air Act

The legislative history of the Clean Air Act Amendments of 1970, which substantially amended the Clean Air Act, contains no references to emission fees or other disincentives. Thus the inquiry into whether the Administrator may adopt emission fees begins with an analysis of the provisions of the statute.

Statutory Provisions -- Hazardous air pollutants -- Section 112(a)[78] defines a hazardous air pollutant as one to which no ambient air quality standard is applicable and which in the judgment of the Administrator of the EPA "may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness." Section 112 requires the Administrator to publish a list of hazardous pollutants for which he intends to establish emission standards for such pollutants and requires that such standards as he prescribes be established "at the level which in his judgment provides an ample margin of safety to protect the public health from such hazardous air pollutant[s]." The standards are effective when promulgated, after which no air pollutants to which they apply may be emitted from a stationary source in violation of the standard applicable and no person may construct a new source or modify an existing source which may in the Administrator's judgment emit a hazardous pollutant unless the Administrator finds that if the source is properly operated it will not violate the standard. The Administrator may grant up to a two-year waiver of the standard if a source needs time to install controls and will take interim steps to avoid threats to public health. The President may exempt any stationary source from compliance with an emission standard for hazardous air pollutants for a period of two years if technology to implement the standard is not available and the operation of the source is required for reasons of national security.

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[77] 411 U.S. 325 (1973).

[78] 42 U.S.C. §1857c-7(a).

If the Administrator finds a person is in violation of a hazardous emission standard he may issue an order requiring compliance or file a civil action for an injunction or other appropriate relief.[79] The states may submit to the Administrator procedures for implementing and enforcing hazardous emission limits within their jurisdictions. If the Administrator finds the procedures adequate he must delegate his authority to implement and enforce the standards to the state.[80]

These provisions governing control of emissions of hazardous substances limit the authority of the Administrator to listing hazardous pollutants, prescribing emission standards for hazardous pollutants (i.e. rules limiting the amount of such pollutants discharged), and issuing enforcement orders or initiating civil suits if he finds a person in violation of these standards. There is no authority in section 112 upon which the Administrator could base rules adopting charges or other disincentives applicable to emissions of hazardous pollutants.

Implementation plans -- Section 110(c) of the Act directs the Administrator to publish proposed regulations setting forth part or all of an implementation plan for achieving primary and secondary ambient air quality standards for any state which (1) fails to submit such a plan, or (2) submits a plan determined by the Administrator to be not in compliance with the requirements of section 110(a)(2), or (3) fails to revise a plan. If, within six months thereafter, the state has not submitted an acceptable plan or revision, the Administrator must promulgate his regulations.

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[79] Section 113(a)(3).

[80] Section 112(d)(1).

The requirements of section 110(a)(2) also provide that the plan include "emission limitations, schedules, and timetables for compliance with such limitations, and such other measures as may be necessary to insure attainment and maintenance of...primary or secondary standard[s], including, but not limited to, land use and transportation controls."

If the Administrator finds that emission charges or other disincentives are "necessary" to achieving the standards in a particular state which has not submitted or revised its plan, then section 110(c) would authorize him to adopt rules incorporating such disincentives for that state. It was under this provision that the Administrator proposed parking surcharges prior to withdrawing them under congressional guidance. Public Law No. 93-319, signed by the President on June 24, 1974, now expressly prohibits promulgation of parking surcharges by the Administrator as part of transportation control measures in implementation plans, although he may approve surcharges if they are included in an implementation plan submitted by a state.[81]

General provisions -- Section 301(a), like section 501(a) of the Federal Water Pollution Control Act Amendments of 1972, authorizes the Administrator "to prescribe such regulations as are necessary to carry out his functions under this chapter." Section 301(a) was cited in conjunction with section 110(c) as authority for the promulgation of parking surcharges. But standing alone this section would not authorize the Administrator to promulgate disincentives, for the same reasons that section 501(a) of the Federal Water Pollution Control Act Amendments of 1972 would not.

Extent of Pre-emption -- Section 116 of the Clean Air Act provides that "except as otherwise provided in sections 209, 211(c)(4), and 233 [pre-empting state regulation of emissions from new motor vehicles and from aircraft and of the use of a fuel or fuel additive] nothing in this Act shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce any standard or limitation respecting emissions of air pollutants or any requirement respecting control or abatement of air pollution." No state or subdivision may adopt or enforce any emission standard or limitation less stringent than one applicable to a new source under section 111 or to a hazardous pollutant under section 112 or in effect under an implementation plan, however.

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[81] Parking surcharges are discussed in section VII of this report.

This broad latitude for state initiatives -- including emission charges -- has been restated in regulations implementing the Clean Air Act. On April 6, 1973, the Environmental Protection Agency promulgated emission standards for three hazardous air pollutants, asbestos, beryllium, and mercury.[82] Section 61.16 of these rules provides that they "shall not be construed in any manner to preclude any State or political subdivision thereof from adopting and enforcing any emission limiting regulation applicable to a stationary source, provided that such emission limiting regulation is not less stringent than the standard prescribed..." State control strategies for achieving ambient air quality standards have been defined to include "federal or state emission charges or taxes or other economic incentives or disincentives."[83] And revisions in plans are to be made as necessary, to take account of "the availability of improved or more expeditious methods of attaining ... standards, such as improved technology or emission charges or taxes..."[84]

Conclusion -- The Administrator of the Environmental Protection Agency may adopt disincentives (excluding parking surcharges) under section 110(c) of the Clean Air Act if he finds them a necessary part of implementation plans to achieve primary and secondary air quality standards in a state. The states and their subdivisions are not pre-empted from adopting disincentives applicable to other than new motor vehicles, aircraft or the use of fuels or fuel additives.[85]

Federal Insecticide, Fungicide and Rodenticide Act

The Federal Environmental Pesticide Control Act of 1972[86] substantially amended the Federal Insecticide, Fungicide and Rodenticide Act. Although the legislative history of the 1972 amendments does not mention applying disincentives to discourage the use of pesticides, several provisions of the amended act provide such authority.

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[82] 38 Fed. Reg. 8820; 40 C.F.R. Part 61.

[83] 40 C.F.R. 51.1(n)(2)

[84] 40 C.F.R. 51.6(a)(2).

[85] California is exempt from the pre-emption applicable to new motor vehicles and fuels and fuel additives. Sections 209(b), 211(c)(4)(B). Other states may provide for controls on the use of fuels or fuel additives in their implementation plans if the Administrator finds them necessary to achieve primary and/or secondary ambient air quality standards. Section 211(c)(4)(C).

[86] Pub. L. No. 92-516; 86 Stat. 973; 7 U.S.C. §135.

Statutory Provisions -- Registration -- Section 3 of the Act requires all pesticides to be registered before being introduced into inter- or intrastate commerce. The Administrator shall register a pesticide if he determines that when used in accordance with widespread, commonly recognized practice it will perform its function "without unreasonable adverse effects on the environment."[87] If he registers a pesticide the Administrator must classify a pesticide either for general use or for restricted use unless its various users call for dual classification.[88] A pesticide is to be classified for restricted use if the Administrator determines that "when applied in accordance with its directions for use, warnings and cautions and for the uses for which it is registered, or for one or more of such uses, or in accordance with a widespread and commonly recognized practice, [it] may generally cause, without additional regulatory restrictions, unreasonably adverse effects on the environment, including injury to the applicator."[89] If the Administrator classifies a pesticide for restricted use because of its effects on the environment (as distinct from on the applicator) it may be applied for any use to which the classification applies "only by or under the direct supervision of a certified applicator, or subject to such other restrictions as the Administrator may provide by regulation."[90] This provision would authorize the Administrator to promulgate regulations -- after affording those affected with an opportunity to comment -- requiring that the application of a restricted-use pesticides would require payment of charges which would discourage its use.[91]

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[87] Section 3(c)(5).

[88] Section 3(d)(1)(A). A general use pesticide is one which, "when applied in accordance with its directions for use, warnings and cautions and for the use for which it is registered, or for one or more of such uses, or in accordance with a widespread and commonly recognized practice, will not generally cause unreasonable adverse effects on the environment." Section 3(d)(1)(B).

[89] Section 3(d)(1)(C). The term "unreasonable adverse effects on the environment" means any unreasonable risk to man or the environment, taking into account the economic, social, and environmental cost and benefits of the use. Section 2(bb).

[90] Section 3(d)(1)(C)(ii) (emphasis added).

[91] Rep. No. 838, 92nd Congress, 2d Session, 20-22 (1972); H.R. Rep. No. 511, 92nd Congress, 2d Session, 13 (1971). These reports indi-

General provisions -- Section 25(a) authorizes the Administrator to "prescribe regulations to carry out the provisions of this Act. Such regulations shall take into account the difference in concept and usage between various classes of pesticides." This section reinforces the Administrator's authority to adopt regulations imposing disincentives charges on the use of restricted-use pesticides.

Experimental use permits -- Section 5 of the Act authorizes the Administrator to issue experimental use permits for a pesticide if the applicant needs the information about it necessary to register it. Use of a pesticide under such a permit is "subject to such terms and conditions" as the Administrator may prescribe in the permit.[92] This provision may authorize the Administrator to impose a condition on the experimental use of a pesticide that the applicant pay charges.

Extent of Pre-emption -- Section 24(a) of the Act authorizes states to "regulate the sale or use of any pesticide or device in the State, but only if and to the extent the regulation does not permit any sale or use prohibited by this Act." This provision does not pre-empt states from adopting disincentives applicable to pesticides classified either for general use or for restricted use under federal registration.

Conclusion -- The Administrator may adopt regulations providing for disincentives on the use of restricted-use pesticides and may condition experimental use permits upon the payment of disincentive charges. The states are not pre-empted from adopting disincentives for any federally registered pesticide.

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cate Congress intended, among other things, to authorize the Administrator to limit quantity, frequency and geographical area of restricted-use pesticide applications. Congress did not intend that the Administrator use this provision to impose a restriction that a restricted-use pesticide could only be used if a permit were obtained prior to each application. "The Committee wishes to emphasize, however, the language contained in this paragraph authorizing the Administrator to impose alternative restrictions does not constitute open-ended authorization for the Administrator." Senate Rep. No. 838, at 21. Whether the Committee would consider imposing disincentives under this authority as going too far cannot be predicted, since the subject was not considered. But the language of the provision is broad enough to support such action.

[92] Section 5(c).

Marine Protection, Research, and Sanctuaries Act of 1972

Statutory Provisions -- Section 102(a) of the Marine Protection, Research, and Sanctuaries Act of 1973[93] authorizes the Administrator of the Environmental Protection Agency to issue permits for the transportation of matter of any kind[94] for the purpose of dumping into ocean waters[95] or for the dumping of matter of any kind into the territorial sea of the U.S. or a zone contiguous to that sea extending twelve miles seaward from the baseline from which the breadth of the territorial sea is measured. In order to issue a permit the Administrator must determine "that such dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities."[96]

Section 104(a) requires that these permits shall include[97] "such other matters as the Administrator...deems appropriate." This section may authorize imposing the payment of disincentives to discourage dumping of toxic or any other matter as a condition of a permit, if the Administrator deemed it appropriate.

Section 108 provides that "[i]n carrying out the responsibilities and authority conferred by this title, the Administrator...[is] authorized to issue such regulations as...[he] may deem appropriate." This section would authorize the Administrator to issue regulations adopting disincentives for dumping matter into the oceans if the Administrator deemed it appropriate.

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[93] Pub. L. No. 92-532; 86 Stat. 1052; 33 U.S.C. §1401.

[94] Except radiological, chemical and biological warfare agents and high-level radioactive wastes, transportation and dumping of which is prohibited by section 101, and dredged material, the dumping of which is regulated by the Secretary of the Army in accordance with section 103.

[95] Ocean waters means "those waters of the open seas lying seaward of the baseline from which the territorial sea is measured, as provided for in the Convention on the Territorial Sea and the Contiguous Zone." Pub. L. No. 92-532, section 3(b).

[96] *Id.*, section 102(a).

[97] In addition to designations of the type of material to be transported for dumping or dumped, the amount authorized to be transported for dumping or dumped, the location where such dumping will occur, the length of time for which the permit is valid, and any provisions necessary for monitoring or surveillance of the dumping.

Section 106(d) provides that "no State shall adopt or enforce any rule or regulation relating to any activity regulated by this title." This pre-empts any state initiatives for regulating ocean dumping, by disincentives or otherwise.[98]

Conclusion -- The Administrator may impose disincentives on ocean dumping as conditions to permits or by promulgating regulations if he deems the disincentives appropriate. States are pre-empted from regulating ocean dumping in any way.[99]

Solid Waste Disposal Act

The Solid Waste Disposal Act, as amended by the Resource Recovery Act of 1970,[100] limits the Environmental Protection Agency to providing information, technical assistance and grants to aid the states in developing solid waste management practices. There are no provisions of the Act which would authorize the Administrator to adopt disincentives, although section 205 does require the Agency to prepare reports to Congress on "recommended...disincentives to accelerate the reclamation or recycling of materials from solid wastes, with special emphasis on motor vehicle hulks."[101] The Act's provisions do not pre-empt state initiatives to adopt disincentives,[102] which are discussed in section V.

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[98] A state may, however, propose criteria relating to ocean dumping in waters within its jurisdiction which the Administrator may adopt, after notice and an opportunity for hearing, if he determines they are not inconsistent with the purposes of the ocean dumping title.

[99] It should be added that section 104(b) of the Act authorizes the Administrator to prescribe fees for permits. These fees are limited by that section to fees for "processing" the permits. The section would not authorize fees similar to royalties for oil produced from outer continental shelf lands or "yearly dumping fees" based on the difference between the cost of ocean dumping and the cost of an alternative means of waste disposal in order to offset the economic advantage gained by ocean dumping enterprises over those who do not have that waste disposal option. Both of these suggestions were made by James L. Collins, Regional Hearing Officer, EPA Region VI, in his discussion of the hearing December 13, 1973, on the application of the GAF Corporation, pages 5 and 7. The discussion is attached to a February 8, 1974 memo from Collins to Regional Administrator Arthur W. Busch.

[100] 42 U.S.C. §3251.

The Noise Control Act of 1972

Statutory Provisions — Section 6(a)(1) of the Noise Control Act of 1972[103] requires the Administrator of the Environmental Protection Agency to publish proposed regulations governing noise emissions of products (other than aircraft) identified in accordance with section

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[101] Section 205(a)(5). The special emphasis on motor vehicle hulks may be attributed to Senators Javits and Gurney (see S. Rep. No. 91-1034, 91st Congress, 2d Session (1970) at 39).

Senator Javits had wanted to propose an amendment to the Resource Recovery Act, and missed his opportunity due to a parlimentary snafu, but his idea was included in the record of that legislation's Senate floor debate. Senator Javits' proposed Title IV called for the creation of a motor vehicle disposal fee to be paid by every car manufacturer for each vehicle it sold, and by each registered owner for each pre-existing vehicle. Monies collected would be deposited in a revolving fund called the Motor Vehicle Disposal Fund. Processors of junked cars would be licensed, in order to guarantee that they had available suitable machinery to process vehicle hulks into established grades of scrap. Upon surrendeirng a vehicle to such a licensed wrecker, the owner would receive a certificate proving that the car was properly disposed of, and entitling him to a disposal payment equal to the disposal fee. It would be illegal to avoid paying the fee, to manufacture a car which did not carry a fee-paid plaque, or to manufacture or furnish counterfeit plaques. Criminal and civil penalties were provided.

While the Javits proposal was not incorporated into the Resource Recovery Act nor has it been independently adopted since, his legislative staff suggests that it will be reintroduced in the 94th Congress.

[102] Section 202(a)(6)provides that "the Congress finds...the collection and disposal of solid waste should continue to be primarily the function of State, regional and local agencies..."

See also, American Can Company v. Oregon Liquor Control Commission, Oregon Court of Appeals, December 17, 1973, 4 ELR 20218 at 20221.

[103] Pub. L. No. 92-574; 86 Stat. 1234.

5(b) as "major sources of noise." He is required to propose such regulations for such products if they are construction equipment, transportation equipment (including recreational vehicles and related equipment), motors or engines (including any equipment of which a motor or engine is an integral part), or electrical or electronic equipment, and if noise emission standards are, in his judgment, feasible. To date the Administrator has identified two products -- medium and heavy duty trucks with a gross vehicle weight of more than 10,000 pounds and portable air compressors rated above 75 cubic feet per minute -- as major sources of noise under section 5(b),[104] although proposed regulations governing their noise emissions have not been issued. Section 6(b) provides that the Administrator may publish proposed regulations for any product for which he is not required to publish them under section 6(a)(1) if, in his judgment, noise emission standards are feasible and the regulations are required for protecting public health and welfare. After the effective date of regulations published under these subsections the manufacturer of each new product to which such regulation applies shall warrant to an ultimate purchaser that the product is designed, built and equipped so as to conform at the time of sale with the regulations.

Both section 6(a) and 6(b) call for regulations "meeting the requirements of subsection (c)." These requirements are (1) that the regulation "shall include a noise emission standard which shall set limits on noise emissions from such product and shall be a standard which in the Administrator's judgment, based on criteria published under section 5,[105] is requisite to protect the public health and welfare, taking into account the magnitude and conditions of use of such product (alone or in combination with other noise sources), the degree of noise reduction achievable through the application of the best available technology, and the cost of compliance," and (2) that a noise emission standard shall be a performance standard. In addition the regulations may contain testing procedures necessary to assure compliance with the emission standard and may contain provisions respecting instructions of the manufacturer for the maintenance, use, or repair of the product.

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[104] 39 Fed. Reg. 22297, June 21, 1974.

[105] Section 5(a)(1) requires the Administrator to develop and publish criteria with respect to noise which shall reflect the scientific knowledge most useful in indicating the kind and extent of all identifiable effects on the public health or welfare which may be expected from differing qualities and quantities of noise.

Read together these provisions of section 6 do not authorize the Administrator to promulgate regulations adopting disincentives, such as charges on the decibel rating of each product. To "meet the requirements of subsection (c)" the regulations need only set a performance standard for noise emissions from a product. In addition subsection (c) specifies two other kinds of requirements which may be imposed -- testing procedures and instructions concerning maintenance and use. By ending the list here, Congress implicitly excluded authority for the Administrator to issue regulations which would go further.

Sections 17(a) and 18(a) respectively authorize the Administrator of the Environmental Protection Agency to promulgate noise emission regulations for "surface carriers engaged in interstate commerce by railroad" and for "motor carriers engaged in interstate commerce." These regulations "shall include noise emission standards setting such limits on noise emissions...which reflect the degree of noise reduction achievable through the application of the best available technology, taking into account the cost of compliance." The Secretary of Transportation has the authority to promulgate regulations to insure compliance with the Administrator's standards.

The Administrator's authority is not limited to setting the standards. The language in sections 17(a) and 18(a) differs from that in section 6. In these sections the Administrator is required to "include" noise emission standards in his regulations but nothing is provided concerning what he may include in addition. And both sections 17(a)(1) and 18 (a)(1) provide that these regulations "shall be in addition to any regulations that may be proposed under section 6." These provisions, read together, might authorize the Administrator to adopt regulations imposing disincentives to discourage noise emissions from interstate rail and motor carriers. Sections 17 and 18 require the Administrator to confer with the Secretary of Transportation before promulgating any regulations "to assure appropriate consideration for safety and technological availability."[106]

Extent of pre-emption -- Sections 17 and 18 provide for complete federal pre-emption of regulatory control of noise emissions from surface carriers engaged in interstate commerce by railroad and from motor carriers engaged in interstate commerce, after the effective date of adequate federal standards. A narrow exception is carved for state and local regulations which the Administrator determines to be necessitated by special local conditions and not in conflict with relevant federal regulations. Likewise, the authority of the state and local governments to establish noise emission performance standards enforceable against the manufacturer for the manufacture of any product governed by federal standards after the effective date of an applicable federal standard is precluded. Thereafter, Section 6(e)(2) provides that state limitations may only reach to the mode and manner of using these products: "Subject to sections 17 and 18, nothing in this section precludes or denies the right of any State or political subdivision thereof to establish and enforce controls on environmental noise (or one or more sources thereof) through the licensing, regulation, or restriction of the use, operation, or movement of any product or combination of products." The language subordinating section 6(e)(2) to sections 17 and 18 serves to limit the states' power to regulate noise associated with use to products other than surface carriers engaged in interstate commerce by railroad and motor carriers engaged in interstate commerce. As indicated above, there is total pre-emption as to those two modes of interstate commerce, and the states generally may not even regulate use without the Administrator's approval.

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[106] Section 17(a)(3), and section 18(a)(3).

In addition, the Supreme Court has recently held in City of Burbank v. Lockheed Air Terminal, Inc.[107] that a locality is pre-empted from exercising its police powers to impose curfews on flights into an airport not owned by it. Most airports at which federally-regulated aircraft land are owned by states or their subdivisions, however, and as owners they may regulate the use of their airports on the basis of noise considerations.[108]

Conclusion -- The Administrator does not have authority under section 6 of the Noise Control Act of 1972 to adopt regulations imposing disincentives on products which are major sources of noise but may adopt regulations under sections 17 and 18 imposing disincentives to control noise from interstate rail and motor carriers. States are not pre-empted from adopting disincentives applicable to use of new products covered by federal noise emission limits, but as to rail or motor carriers or their components, states may adopt use limitations and disincentives only if the Administrator determines 'special local circumstances' warrant their approval. States or their subdivisions may impose disincentives on the noise from flights into airports they own.

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[107] 411 U.S. 624 (1973).

[108] American Airlines v. Town of Hempstead, 272 F. Supp. 226 (E.D. N.Y. 1967); S. Rep. No. 90-1353, 90th Congress, 2d Session (1968) at 6-7 City of Burbank v. Lockheed Air Terminal, 411 U.S. 624, note 14 (1973).

Reorganization Plan No. 3

Section 6 of Reorganization Plan No. 3 of 1970 authorizes the Environmental Protection Agency to establish generally applicable environmental standards for the protection of the general environment against radioactive material, i.e., limits on radiation exposures or levels, or on concentrations or quantities of radioactive material in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material. Responsibility for the implementation of these radiation standards remains with the Atomic Energy Commission, however.[109] The Agency has no authority to adopt disincentives for controlling radiation. This control is vested with the Atomic Energy Commission and state authority to impose standards stricter than the AEC's is pre-empted by the Atomic Energy Act.[110] Because EPA has no implementation and enforcement responsibilities in the radiation field, the use of economic disincentives to promote compliance with EPA-established radiation standards will not be discussed here.

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[109] See EPA's announcement of intention to issue standards for normal operations of activities in the uranium fuel cycle, May 19, 1974, 39 Fed. Reg. 16906.

[110] Northern States Power Co. v. Minnesota, 405 U.S. 1035 (1972), affirming 447 F.2d 1143 (8th Cir. 1971).

SECTION V

STATE AND LOCAL DISINCENTIVE INITIATIVES

INTRODUCTION

State and local governments have considered several bills providing for disincentives in various environmental fields and have enacted a few. As discussed in section IV above, the legal issues raised by these initiatives usually involve questions whether the police or taxing powers to adopt disincentives (1) have been pre-empted by federal laws or (2) have been exercised constitutionally.

These questions have so far been predominantly resolved in support of the disincentives which the courts have been asked to consider. This section describes several representative measures -- the "bottle laws" of Oregon and Vermont, the nicotine and tar tax of New York City, the tax on plastic containers of New York City, and Vermont's tax on capital gains from speculation in land -- and how the courts have analyzed these measures.

BOTTLE LAWS

Oregon

Oregon's bottle law[1] took effect October 1, 1972. It governs sales of "beer or other malt beverages and mineral waters, soda water and similar carbonated soft drinks."[2] Its aim is to reduce solid waste and promote resource conservation. Under the law the amount of a bottle deposit is added to the beverage price at the time of sale; this increase in price is refunded to the consumer when bottles are returned to the retailer or to a reclamation center. In this way Oregon's 1971 law "makes bottles ... too valuable to heap on the countryside."[3]

The bill states that "every beverage container sold or offered for sale in this state shall have a refund value of not less than five cents,"[4] except beverage containers certified by the Oregon Liquor Control Commission. Certified bottles carry a mandatory deposit of two cents, the minimum deposit value any marketed beverage container subject to the law may have. By definition a certified beverage container is "reusable ... by more than one manufacturer;"[5] certification is designed "to promote the use in this state of reusable beverage containers of uniform design, and to facilitate the return of containers to manufacturers for reuse as a beverage container."[6] Bottle uniformity is promoted so as to ease retailers' sorting and storage tasks and to promote fungibility of the bottle supply. A beverage container may not be certified:

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[1] Oregon Revised Statutes [hereinafter cited as ORS], §§459.810-459.992.

[2] ORS §459.810(1).

[3] Environmental Action Bulletin, Washington, D.C., March 24, 1973, p. 8.

[4] ORS §459.820(1) (emphasis added).

> if by reason of its shape or design, or by reason of words or symbols permanently inscribed thereon, whether by engraving, embossing, painting or other permanent method, it is reusable as a beverage container in the ordinary course of business only by a manufacturer of a beverage sold under a specific brand name.[7]

Thus, those beverage companies unwilling to relinquish outstanding trademarks and the resultant sales benefits they might confer are forced to post a higher refund -- of at least five cents -- which adds eighteen cents to the price of a six-pack of beverages, and which may discourage consumers from buying such a comparatively expensive product.

All empty bottles and cans are worth money, whether found on a highway or purchased at a store. Dealers must accept any type bottle they sell, regardless of whether or not a consumer purchased a particular container at that store, thus facilitating beverage container return. Not only must a retailer accept empty beverage containers from a consumer if he sells that beverage, but a distributor must accept all containers from a retailer providing they are the kind, size and brand sold by him.

Also, the law bans "any metal beverage container so designed and constructed that a part of the container is detachable in opening the container without the aid of a can opener."[8]

Legality of the Law -- In February 1974 the Oregon Supreme Court affirmed the December 17, 1973, opinion of the Oregon Court of Appeals which sustained the Oregon law against challenges that it

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[5] ORS §459.860(2)(a).

[6] ORS §459.860(1).

[7] ORS §459.860(3).

[8] ORS §459.860(1).

(1) placed undue burdens on interstate commerce, (2) violated the due process clause of the Fourteenth Amendment (3) violated the plaintiffs' right to equal protection of the law, and (4) violated provisions of the Oregon State constitution. Plantiff canners and brewers have decided not to appeal that decision to the U.S. Supreme Court. Because the Court of Appeals opinion thoroughly analyzes the effects of the Oregon law and the legal issues involved, and because the opinion was relied on in upholding Vermont's mandatory deposit law, it is reproduced in full as Appendix E. In summary the principal points are:

1. The federal Solid Waste Disposal Act places the responsibility for solid waste control with state and local governments rather than pre-empting the field.

2. U.S. Supreme Court cases invalidating state intrusions on the free flow of instrumentalities of commerce are inapplicable because this law regulates goods in commerce, not the means for conveying them.

3. The purpose of the Oregon law was not to protect economic interests of Oregon to the detriment of those in other states, therefore cases weighing the extent to which state interests may interfere with interstate commerce by such protectionist legislation are inapposite.

4. The legislature judged that the benefits to the public from the law outweighed the detriments to the beverage industry and the courts will not review that judgment to assure "substantive" due process.

5. The law is reasonably calculated to achieve legitimate state objectives under the police power. The fact that other containers may also cause litter does not mean plaintiffs have been denied equal protection of the law: "It is no requirement of equal protection that all evils of the same genus be eradicated or none at all."

Effect of the Law on Litter, Prices — Section 11 of the law requires that a study be conducted of the act's operation, including an analysis of its economic impact "on persons...who engage in the non-alcoholic beverage manufacturing business" and on all others who must comply with the act.[9] The rate of the reduction of bottle and can litter is to be studied, along with enforcement costs.[10] A preliminary, six month progress report notes that the bottle container component of roadside litter along Oregon's highways has been reduced by 50-70 per cent.[11] By some estimates bottle litter was reduced 90 per cent one year after the date of implementation of the bill.[12]

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[9] Oregon Laws of 1971 (uncodified bill), chap. 745, §11(1).

[10] Oregon Laws of 1971 (uncodified bill), chap. 745, §11(1)(d).

[11] Environmental Action Bulletin, supra, note 3, p. 2.

While beverage manufacturers are wont to make a connection between the increased demand for soft drinks since the end of the 1950's and the switch to the no-deposit-no-return bottle, no documentation presently exists which substantiates this claim. Oregon soft drink sales have increased since the enactment of the bottle bill; whether this is attributable to the bottle bill is not known. Canners have suffered to a much greater degree than bottlers. One canning company, Emerald Canning Company, owned by the Coca Cola Company, recently closed down. Canned beverage sales have dropped from 25 per cent of all sales to less than 5 per cent.[13] Before the effective date of the bill, 35-40 per cent of all beer sales were in cans; canned beer sales have now fallen to less than 5 per cent of all beer business.[14]

Prior to the bottle bill, about half of Oregon's beverages were packaged in returnable bottles. Handling costs to retailers were estimated at between 15 and 25 cents per case.[15] Soft drink prices in Oregon tend to be less than those in Washington where returnable bottles are not as prevalent; canned soft drink prices vary from 21 to 23 per cent more per ounce than beverages purchased in Oregon's returnable bottles.[16]

Beer prices have had a more unusual history. A series of price increases have raised beer prices a total of 15 cents per sixpack. But retailers have not credited the price rise to increased handling caused by the bottle bill.[17] Apparently beer price increases are the result of cost pressures on other products which retailers could not readily pass on to consumers; instead prices were raised on beer.

Vermont

In order to reduce litter, Vermont's bottle law provided for a levy of four mills per beverage container from July 1, 1972 to July 1, 1973, payable by manufacturers or distributors of containers to the Commissioner of Taxes.[18] Up to the first $1 million of this tax was to be distributed to towns on a per capita basis for use by them in operating or maintaining sanitary landfills.[19]

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[12] Don Waggoner, "Oregon's 'Bottle Bill' -- One Year Later," Oregon Environmental Council, October 4, 1973, at 1.

[13] Id., at 12.

[14] Id., at 13.

[15] Id., at 11.

[16] Id., at 9.

[17] Id., at 10-11.

[18] 10 V.S.A. 1522.

In lieu of this tax -- and on a mandatory basis after July 1, 1973, except for wine and liquor containers, as to which the tax continued -- manufacturers or distributors were to require a deposit of not less than five cents per container to be paid by the consumer and refunded to him upon return of the empty container.[20] Container was defined to exclude biodegradable containers.[21] Beverage was defined to include beer, malt beverages, mineral waters, soda water, soft drinks, and wines,[22] a definition which the Attorney General was asked to clarify.[23]

The law requires that each container sold or intended for distribution in Vermont be labeled with a statement of the amount of the deposit and the name of the state.[24] It also requires that retailers "must be reimbursed [for handling costs]... by the manufacturer or distributor in an amount directly proportional to the quantity of beverage containers redeemed."[25] Vermont's Environmental Protection Regulation 10-1523.7 implements this requirement by providing that:

> A retailer required to collect and refund deposits of consumers, and to redeem containers upon which deposits are required, shall be reimbursed by the manufacturer or distributor of such beverage containers in the amount of 20 per cent of the amount of such deposit returned to the consumer.

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[19] 10 V.S.A. 1524(1).

[20] 10 V.S.A. 1523(a).

[21] 10 V.S.A. 1521(3). The full definition reads:
Container means the individual, separate, bottle, can, jar or carton composed of glass, metal, paper, plastic or any combination of those materials containing a consumer product. This definition shall not include containers made of biodegradable material.

[22] 10 V.S.A. 1521(1). The full definition reads:
Beverage means beer or other malt beverages and mineral waters, soda water and similar soft drinks in liquid form and intended for human consumption, whether or not carbonated, but does not include uncarbonated water, soups, fluid milk products, unadulterated, natural, reconstituted or frozen fruit, vegetable or meat juices, or liquids intended for medicinal purposes only. The term beverage also includes spirituous liquors and vinous beverages as defined in section 2 of Title 7.

[23] Opinion Number 88 of the Office of the Attorney General, May 2, 1973.

[24] 10 V.S.A. 1523(b)(1).

[25] 10 V.S.A. 1523(b)(2).

Alternatively, the manufacturer or distributor may establish state-approved redemption centers for his containers, at least one in each town, where the deposit fee may be returned to consumers.[26]

Legality of the Law -- Both beverage distributors[27] and retail grocers filed suits challenging the constitutionality of the law. The grocers' case, Francis Speno et al. v. Kimberly Cheney, et al.,[28] was decided on April 1, 1974, by the Addison County Court, the trial court. Judge Larrow deemed "the element of time ... of more importance than the drafting and filing of a lengthy opinion."[29] In a brief opinion he held that Vermont's law did not violate the Commerce Clause, the Due Process Clause or the Equal Protection Clause. He cited the Oregon litigation[30] for all three propositions as well as U.S. Supreme Court opinions relied on in the Oregon opinion.[31]

Effects of the Law -- Revenues from the litter levy from July 1, 1972 to July 1, 1973, were just over $800,000.[32] It is anticipated that $40,000 will be generated in fiscal year 1973-74 from the continuing levy on liquor and wine bottles.[33]

In June 1973 there were large inventories of products on which the container levy had already been paid. In order to assist the transition from the levy to the deposit system, the Agency of Environmental Conservation's implementing regulations postponed the effective date of the deposit and labeling requirements until September 1, 1973.[34]

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[26] Id.

[27] Wark Bros., Inc., et al. v. Martin L. Johnson, et al., Chitenden County Court, Docket No. C449-73Cnc, filed August 24, 1973.

[28] Addison County Court, Docket No. C4-74Ac.

[29] Id., Conclusions, issued April 1, 1974, at 1.

[30] American Can Co. v. Oregon Liquor Control Commission, Oregon Court of Appeals, December 17, 1973, 4 ELR 20218, affirmed without opinion by Oregon Supreme Court, February 1974.

[31] Judge Larrow cited Ferguson v. Skrupa, 372 U.S. 726 (1973), in support of his holding that the Vermont statute did not violate the due process clause of the Fourteenth Amendment. He cited Williamson v. Lee Optical Co., 348 U.S. 483 (1955), in support of his holding that the law did not violate the Equal Protection Clause of the Fourteenth Amendment.

[32] "Report to Governor Thomas P. Salmon from the Highway Litter Evaluation Committee," December 1973, 32.

[33] Id.

The deposit system has thus not been in effect long enough for definite conclusions about its effects. Comparative data about amounts of litter are unavailable,[35] although the general impression is of less littered roadways.[36] Soft drink bottlers have been prompted by the law and increasing costs of the materials for their products to reintroduce reusable containers.[37] Beer distributors have not done so, however, and have generally simply taken the returned containers to the dump.[38] The beer distributors sometimes placed the deposit label on container bottoms.[39] They also have retained the price increase instituted when the levy became effective, thus increasing their profits. As explained to the Senate Committee on Commerce on May 6, 1974 by Donald Webster, Director of Environmental Protection in Vermont:

> Price adjustments made by distributors followed this pattern. An increase in retail price of 36 to 48 cents per case was placed on merchandise, ostensibly to defray increased costs and handling fees. Additionally, the full cost of deposit and retail handling was billed to the retailers at delivery so that any breakage would accrue to the distributors.
>
> This system works this way:
>
> 36 to 48 cent per case general increase
> \$1.20 pre-collected deposit
> 24 cents pre-collected handling fee
> \$1.80 to \$1.92 increase at purchase
>
> The industry, by their own admission, expected a container return of approximately 80%. This would indicate an expected yield

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[34] "The Vermont Beverage Container Law," Statement of Donald W. Webster, Director of Environmental Protection, Agency of Environmental Conservation, State of Vermont, May 6, 1974, to the Committee on Commerce, 4.

[35] "Report to the Governor from the Highway Litter Evaluation Committee," *supra*, note 32, 12.

[36] Statement of Donald W. Webster, *supra*, note 34, at 11; Catharine Bothwell, "Vermont: The Verdict's Not In," in *Environmental Action*, November 10, 1973, 6.

[37] Statement of Donald W. Webster, *supra*, note 34 at 5.

[38] *Id.*, Bothwell, *supra*, note 36 at 6.

[39] Statement of Donald W. Webster, *supra*, note 34, at 5.

> as follows:
> General increase -- $.36 to $.48
> Deposit net -- $1.20-$.96 = $.24
> Handling fee net -- $ .24-$.192 = $.048
> Total Breakage (per case) = $.648 to $.768
>
> Add to this the four mill Litter Levy formerly paid to the State ($.096) and the total expected differential is $.744 to $.864 per case.
>
> It is interesting to note that while the soft drink industry likewise kept the former Litter Levy in their price structure, and added the Container Deposit as a direct billing, there was no general increase added, nor was the handling fee "front-ended," they preferring to wait upon experience. (The soda bottlers, incidentally, were expecting, and hoping for, a higher rate of return for more economic utilization of refillables. In point of fact, container return in the soda industry is running about 90%, with a high month of 94%.)[40]

It was the grocers who were the most directly affected by the deposit system and who reacted most vigorously against it, both via public campaigns for the law's repeal and private harrassment of customers seeking deposit refunds.[41] Grocers (and distributors) near borders were most noticeably affected.[42]

There are reported declines in sales of soft drinks and malt beverages in Vermont which are attributed by brewers to the deposit system. Other factors also played a role, however, including adverse weather and fuel shortages which depressed tourism and thus beverage sales.[43] Some retailers -- including Vermont's largest soft drink distributor -- are returning to previous sales levels or exceeding them.[44]

CITY OF NEW YORK NICOTINE AND TAR TAX

Pursuant to a state enabling act[45] the City of New York adopted a local law effective July 1, 1971,[46] which imposed, in addition to basic cigarette tax of two cents for each ten cigarettes or fraction thereof, an "additional tax at the following rates: 1. One and one-half cents for each ten cigarettes where either their tar content exceeds seventeen milligrams per cigarette or their nicotine content exceeds one and one-tenth milligrams per cigarette; 2. Two cents for each ten cigarettes where their tar content exceeds seventeen miligrams per cigarette and their nicotine content exceeds one and one-tenth milligrams per cigarette."

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[40] *Id.*, at 6-7.

[41] *Id.*, at 8.

[42] *Id.*; "Report to the Governor from the Highway Litter Evaluation Committee," *supra*, note 32, Conclusion No. 12, 4.

[43] Statement of Donald W. Webster, *supra*, note 34, at 9-10.

[44] *Id.*, at 9.

[45] Chapter 394, Laws of New York, 1971 Regular Session.

[46] Local Law 1971, No. 34, June 30, 1971, codified as section D46-2.0 and section D46-8.0, Administrative Code, the City of New York.

Despite the absence of illuminating floor debate from the Journals of the New York State Senate and Assembly, it appears that the intention of the enabling act was to make relatively more expensive the smoking of cigarettes with a high content of nicotine and tar, because of the threat to health which they constitute. Further, the local law stressed, "[i]t is intended that the ultimate incidence of and liability for the tax shall be upon the consumer."[47] To achieve this, regulations were promulgated which required differentiated retail prices reflecting the higher tax on high nicotine and tar content, and giving notice to the consumer of the tax he has paid.

Legality of the Law

The enabling act and Local Law 34 were upheld as constitutional in a criminal case, People v. Cook.[48] That decision was affirmed without opinion at the first appeals level, and the decision of New York's highest court (the Court of Appeals) is awaited.[49]

The requirement for a retail price differential was at issue in a second case.[50] The Long Island Tobacco Company sought a preliminary injunction against enforcement of this provision. The City of New York moved to dismiss for failure to state a cause of action, and the New York Supreme Court (the state's trial level court) granted the motion, holding that the local law was proper and in conformity with the enabling act.

The plaintiff, Long Island Tobacco Company, owned and operated vending machines and was arguably burdened more than other vendors because although the law called for a four cent per pack or three cent per pack increment on over-the-counter sales, regulations promulgated by the City's Finance Administrator imposed a five cent per pack differential on cigarettes in vending machines.[51] In the view of the Finance Administrator such a five cent increment was required by the fact that most vending machines cannot handle smaller than nickel price variances, and the alternative would be to exempt cigarette sales in vending machines, which are substantial.

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[47] Section D46-2. 0a.3.

[48] New York Law Journal, February 14, 1973, 19, col. 4.

[49] Long Island Tobacco Co., Inc. v. Lindsay, 343 N.Y.S.2d 759, 764 (1973).

[50] Id.

The taxation of cigarette sales by the City of New York was not novel; it had occurred under an enabling act adopted in 1952.[52] The novel provisions were those pegging tax rates to nicotine and tar levels, and piggybacking them atop the basic cigarette tax rate. Further, it was novel to require retail prices which kept a fixed differential based upon nicotine and tar toxicity levels. The language of the local law and its enabling act defining these new taxes are identical, so that no question arose regarding whether the municipality was within the scope of state authorization.

The key operative language of the local law specifically empowered the Finance Administrator to "provide by appropriate regulation for the maintenance of such differentials in wholesale and retail prices of cigarettes...so as to reflect the amounts of tax attributable to the tar and nicotine content of cigarettes sold ... In addition, he may consider the mode or method by which retail sales are effected and limit his regulations so as to affect any one or more or all of such modes or methods."[53]

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[51] The regulations of the Finance Administrator amended Article 2-A of the regulations under the Cigarette Tax Law (originally promulgated May 15, 1952) to provide:

> In furtherance of the purpose of the additional tax to direct attention to the cigarettes containing excessive tar and nicotine and to thereby promote the health and welfare of the people of the City, the prices of all cigarettes subject to the additional tax, sold in the City by vendors other than manufacturers, shall reflect a difference in price at least equivalent to the amount of the additional tax imposed, and such differences in price must be clearly marked in all price lists, bills, advertisements, catalogues or publications pertaining to the sale of such cigarettes. However, with respect to vending machine sales the prices of all cigarettes subject to the additional tax regardless of the actual amount of such tax, may reflect a difference in price of at least five cents, and such differential shall be clearly indicated on all vending machines.

Supra, note 49, at 762.

[52] Chapter 235, 1952 Laws of New York.

[53] Section D46-8.0(11) of the Administrative Code of New York.

Plaintiffs' contentions were that requiring the price differential (1) constituted an unlawful enactment beyond the scope of power given to the city by the enabling act; (2) represented a denial of due process of law because it would be possible for regulation achieving the same ends without placing such an onerous burden on these vendors; (3) the federal government has pre-empted regulation of the health concerns raised by smoking; and (4) imposition of a compulsory differential is not a regulatory methodology supported by the city's police power.[54]

Justice Silverman, however, rejected each of these arguments. The enabling act speaks of bestowing upon the city all authority to impose cigarette taxes "which the legislature has or would have power and authority to impose...."[55] Requiring a tax reflecting price differential is based on the desire to prevent marketers from absorbing the tax cost in their general overhead, and general provisions prohibiting sellers from absorbing tax costs can be found in section 471(2) of the Tax Law of New York, and in section D46-2.0(3) of the Administrative Code of the City of New York, cigarette tax provisions which both predate the nicotine and tar tax.

Further, Justice Silverman agreed with the City that use of a price differential to call public attention to the health hazards of smoking high nicotine and tar cigarettes was a proper exercise of the police power under New York's Municipal Home Rule Law section 10.[56] Disposing of the pre-emption issue next, the Justice recited the cardinal rule that a judicial finding of federal pre-emption is unwarranted unless all state legislation in an area is clearly barred. No such Congressional policy was found here, even despite the fact that local regulation was in the realm of price lists and advertisements, and the federal law is specifically directed to advertising and promotion.[57] Finally, the Justice rejected plaintiff's arguments regarding machine vendors' special circumstances:

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[54] Long Island Tobacco Co., Inc. v. Lindsay, supra, note 49 at 762.

[55] This language is quoted from the Preamble to Chapter 394 of the Laws of New York, 1971 Regular Session.

[56] Subdivision 1(a)(11) allows the city to enact ordinances for the protection and enhancement of its physical and visual environment.

[57] The tobacco company argued that the City's ordinance was barred by section 5(b) of the Federal Public Health Cigarette Smoking Act of 1969, 15 U.S.C. §1334[b], which pre-empts any state or local regulation "[b]ased on smoking and health...with respect to the advertising or promotion of any cigarette" bearing the warning required by that Act.

> ...the special vending machine provision appears to be an effort to help that industry meet the problems arising from the machine's apparent inability to handle transactions except in multiples of five cents; it permits one price differential of five cents instead of two different price differentials of three and four cents respectively.[58]

Holding the statute and regulations valid, the Justice dismissed the suit with prejudice to the plaintiffs, in order that an appeal might be taken.

In the Appellate Division, First Department, Justice Silverman was unanimously affirmed[59] and no further appeal was taken. As the City of New York is the only municipality within the reach of the enabling act,[60] no parallel local laws or regulations have been adopted, and there has been no further litigation under New York City's provisions, which remain good law.

Effects of the Law

It is difficult to assess the net effect of the New York City nicotine and tar tax, which is now ending its third year of operation. William Drayton, in his exhaustive study of the economic and legal aspects of the nicotine and tar taxes, attempted such analysis when the law was but one year old:

> New York's experience seems to support this expectation [that cigarette consumers are sensitive to price]. An analysis of the tax receipts from the city's two cigarette taxes, the old four-cents-a-pack, flat-rate tax and the new tar and nicotine tax, suggests that there may have been a shift from taxed to exempt brands of approximately twelve to thirteen per cent of all cigarettes sold in the city. This estimate is especially encouraging as New York is a rather difficult test case: Even before the incentive tax was imposed the city had one of the highest per pack cigarette taxes in the country and consequently a major smuggling problem. While this means that the incentive differentials had to be greater than elsewhere to have the same impact on the city's inflated prices, the fear of encouraging even more smuggling led officials to impose

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[58] Long Island Co., Inc. v. Lindsay, supra, note 49 at 764.

[59] 348 N.Y.S.2d 122.

[60] Chapter 235 of the Laws of 1952 was re-entitled by chapter 369 of the Laws of 1959 to read "an act to enable any city of the state having a population of one million or more to adopt and amend local laws imposing certain specified types of taxes on cigarettes...." New York City is the only city in New York with more than one million population.

smaller differentials of three and four cents. Although each retailer is required to post the amount each brand is taxed and why, most retail prices in the city do not reflect the tax's low rates.

The twelve to thirteen per cent estimate of consumer switching could be wrong for three reasons.

First, it is possible that the pretax distribution of brands sold in New York was different from the national mix used in calculating the shift. If New York consumers were already purchasing more low tar and nicotine brands than the national average, the shift estimate would be too high. [The reason for this is that what is being compared is actual brand selections data for New York City after adoption of the act and a nationwide consumer preference average before the Act's adoption. To the extent that the national average failed to reflect New Yorkers' preferences for low tar and nicotine cigarettes before the tax, this computation will overstate the shift to them after its adoption.] Unfortunately there is almost no evidence available on this point.

Second, if the period of analysis coincided with a national trend away from high tar and nicotine brands, the twelve to thirteen per cent figure would also be overstating the impact of the tax. However, this was almost certainly not the case. The average tar and nicotine consumed nationally during the period did not decrease, it increased. Thus, unless New York's consumption was shifting against national trends for reasons other than the tax, the estimate seems to err on the side of being conservative, if it errs at all.

Third, New York's significant level of smuggling, about thirteen per cent of all cigarette sales in the city, may distort the calculations. Smugglers may prefer to sell high tar and nicotine brands because of the greater tax-untaxed differential. If they were able to manipulate their market, this would create an exaggerated impression of shifting to untaxed brands in measurements based only on cigarettes actually taxed. But this seems limited. There was only about a two per cent increase in the volume of both smuggling and avoidance attributable to the tax over its first ten months. Moreover, the smugglers probably have supplied whatever brands their customers demand. Finally, the smugglers' response to the tax actually seems quite different; they are reported to be charging higher prices for brands subject to the tax. Thus, the impact of the tax's incentives seems not to be lost even on those who do not legally pay it.

While the twelve to thirteen per cent estimate amy require some modifications, the revenue figures do suggest that the tar and nicotine tax has had at least some of the public health impact intended.[61]

To evaluate the effectiveness of New York City's nicotine and tar tax as an economic disincentive charge requires isolating the monetary impact of the price differential from the notice impact of government action telling the consumer that two levels of medical risk exist, and from the anti-smoking campaign on television and in the print media. Drayton is aware of no published study attempting to do this in the two years since his article appeared. The Ways and Means Committee of the New York State Assembly apparently has conducted a staff study of the nicotine and tar tax, but Drayton asserts that it has been held back from him and from others for political reasons. The New York legislature has not, however, adopted additional enabling acts opening such taxation up to smaller cities or to the counties.

CITY OF NEW YORK TAX ON PLASTIC CONTAINERS

Pursuant to a state enabling law[62] the City of New York adopted a local law[63] which imposed a tax upon every sale of a plastic container at the rate of two cents for each container sold...."[64] The local tax law further permitted a credit of one cent per container if "manufactured with a minimum of thirty per cent of recycled material."[65] The Society of the Plastics Industry promptly commenced legal action to have the law declared unconstitutional, and moved for a temporary injunction against enforcement pending judgment. Such preliminary relief was denied, however, as the matter could be brought to trial before any tax liability would accrue.[66]

The trial was held in the New York Supreme Court (the trial level court) in and for New York County, Justice Streit presiding. The

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[61] 81 *Yale Law Journal* 1487.

[62] Chapter 399, Laws of New York, 1971, entitled "An Act to Amend Tax Law, by Adding Thereto Provisions Enabling Any City with a Population of One Million or More to Impose Taxes to Promote Recycling of Containers and Reduce the Cost of Solid Waste Disposal to Such City."

[63] Local Law No. 43 of the City of New York, June 30, 1971, entitled "A Local Law to Amend the Administrative Code for the City of New York in Relation to Raising Revenue by Imposing Taxes on Plastic Containers and to Promote the Recycling of Such Containers and Reduce the Cost of Solid Waste Disposal to the City."

[64] Section F46-2.0, Administrative Code of the City of New York.

[65] Section F46-2.0(2), Administrative Code of the City of New York.

[66] *Society of the Plastics Industry, Inc. v. City of New York*, index no. 15225/1971 (New York Supreme Court, September 16, 1971), 1 ELR 20467.

Society sought a declaratory judgment that Local Law 43 was unconstitutional and invalid, and asked for permanent injunctive relief. The Society contended the local law (1) failed to comply with the provisions of chapter 399,[67] (2) unconstitutionally discriminated against them by taxing only plastic containers rather than the entire range of packages enumerated in the enabling act, (3) was a taking without due process of law, and (4) imposed an undue burden on interstate commerce.[68]

Justice Streit enunciated the legal principle that a municipal corporation has no inherent power to assess and levy taxes, deriving it instead from enactments of the state legislature. Such taxation enabling acts are to be strictly construed, and local laws adopted thereunder must strictly conform. "If the authority of the City to tax is doubtful, the doubt must always be resolved against the tax."[69] Under chapter 399, New York City could impose "[t]axes on the sale of containers made in whole or in part of rigid or semi-rigid paperboard, fibre, glass, metal, plastic or any combination of such materials..."[70] The stated purpose for the taxation was "to promote the recycling of containers and reduce the cost of solid waste disposal to such city."[71] Maximum rates were set by the legislature at: "(i) three cents for each plastic bottle, (ii) two cents for each other plastic container, (iii) two cents for each glass container, (iv) two cents for each metal container except one cent for metal containers shown to be made of one metal only."[72] Containers made of two or more constituent elements are treated as if made of the material having the highest tax rate of the following: fiber and paperboard, one cent; metal, two cents; glass, two cents; plastic, three cents. The enabling act also contains tax credit provisions based upon the material used and the percentage of recycled material composing the container.

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[67] Codified as Article 29, section 1201[f], Tax Law of New York.

[68] Society of the Plastics Industry, Inc. v. City of New York, 326 N.Y.S.2d 788, 68 Misc. 2d 366 (1971).

[69] Society of the Plastics Industry, Inc. v. City of New York, 326 N.Y.S.2d 788, 794.

[70] Id.

[71] Id. The quoted language is from the title to chapter 399.

[72] Id.

Local Law 43 provided for a two cent tax on the sale of a plastic containers only, and a one cent credit for each taxable container composed of a minimum of 30 per cent recycled material. Plaintiffs contended that the fatal defect of Local Law 43 was that it taxed plastic containers only, rather than imposing a tax upon the entire "taxable class" set forth in chapter 399. The City argued that as "the use of taxes for waste disposal control purposes is a novel device not before used..."[73] selective application should initially be permitted. The Justice disagreed: "The type of tax set forth in subdivision (f) was a tax on rigid and semi-rigid containers made of five specified types of materials. The contention that each type of container material may thus be the subject of a separate tax strains the plain meaning of the law and contravenes the tenet of strict construction of tax statutes."[74] By comparison, subsection (c) of section 1201 allows municipalities to select from among the various classes and types of coin operated amusement devices in imposing local taxes. If specific language is needed to give (c) this flexibility, its absence underlines the rigidity of (f).[75] Not content with statutory construction alone, the Justice chose to examine the policy behind chapter 399:

> Unless the tax were imposed upon all the enumerated types of container materials there could be no "incentive" to recycle containers nor to reduce significantly the amount of solid waste or the cost of its disposal. The only "incentive" created by a tax on one, rather than all types of containers, would be the incentive to switch from the taxed type to the exempted types, with no reduction in the volume of containers used and no recycling.
>
> When the City chose to tax only plastic containers, it did not, as it contends, simply enact a "lesser" included tax. Rather, it legislated an entirely different tax; one whose true purpose and effect was, as conceded by defense counsel, "to curtail the amount of plastics and to eliminate as many plastics as possible."[76]

Thereupon, the Justice held that Local Law 43 exceeded the grant of authority in chapter 399, and thus violated Article III, section 1, and Article XVI, section 1 of the New York State Constitution.[77]

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[73] Id., at 795.

[74] Id., at 796.

[75] In reaching this conclusion Justice Streit relied on the case of Glen Cove Theatres, Inc. v. City of Glen Cove, 36 Misc. 2d 772, 233 N.Y.S.2d 972.

[76] Society of the Plastics Industry, Inc. v. City of New York, 326 N.Y.S. 2d 788, at 797.

Discussing next the claim that the challenged tax violated the Equal Protection Clauses of the Fourteenth Amendment and Article I, section 11, New York State Constitution, in imposing unreasonable and arbitrary classifications unrelated to its object, Justice Streit chided the city for changing legal arguments in mid-stream. He contended that the Corporation Counsel had shifted his explanation of statutory purpose from pollution regulation to revenue-raising.[78] Likely this was because the test for granting a preliminary injunction requires the judge to evaluate plaintiffs' chance for success on the merits, and probably when the Corporation Counsel read the Justice's order denying the injunction he chose to shift ground. Dismissing the enactment's presumption of constitutionality as rebuttable,[79] the Justice bore in on the distinction between plastic and non-plastic containers. He cited a long line of oleomargarine and butter cases in the United States Supreme Court,

> wherein the factual basis underlying the distinction between the two products was judicially examined in extensive detail before any conclusion on the equal protection or due process assertions was reached. Not only was there careful consideration of such things as the ingredient composition of the two products and the danger of consumer fraud and deception (passing off colored margarine as pure butter), but also consideration of the legitimate state interest in protecting the dairy farming industry (which formed the principal tax base in states adopting such legislation) from the destructive onslaught of cheaply produced butter substitutes.[80]

With reference to the case before him, the Justice was emphatic: "This Court perceives no obvious distinction between plastic containers and all other types and, in line with impressive precedents, has put the parties to their proof on this question."[81] Further, the disparities between chapter 399 and Local Law 43 are even more inexplicable since the enabling act was itself drafted by the City's Environmental Protection Administration after hearings. From its inception, the Court suggests, the measure was intended as an environmental protection, and not as a revenue bill. The Justice was therefore piqued by the Corporation Counsel's tactical shift:

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[77] *Id.*

[78] *Id.*

[79] *Id.*, at 798.

[80] *Id.*, at 799.

[81] *Id.*

> (Interestingly, the architect of this law, Mr. Kretchmer, had a great deal more to say about its background and purposes on the motion for preliminary injunction herein. Upon the trial, however, the defendants disavowed all that Mr. Kretchmer had to say upon the preliminary proceeding, failed to offer in evidence his sworn affidavits thereon, and declined to call him as a witness...)[82]

The Justice found that plaintiffs' claim of a discrimination against plastic containers was valid, and that this discrimination did not arise from any difference having a fair and substantial relation to the object of the legislation.[83]

Expert evidence which was introduced clearly showed that plastic containers are cheaper to collect than glass and metal because the chief cost factor is weight. And as to disposal, in sanitary landfill and incineration operations, the Judge found that plastics are cheaper to incinerate and do not damage disposal equipment in small concentrations, as in household waste. "(Surprisingly, defendants could point to no current survey conducted by the City which established the actual composition of the City's solid waste.)"[84] Further, plastic containers do not occupy more volume during haulage, and probably occupy less, since they are more compactable than glass or metal. In effect, Justice Streit suggested that far from environmental protection, a disguised attack on plastic solid waste alone might actually result in a greater weight and volume of non-biodegradeable glass. The Justice found that the discrimination against plastic "does not rest upon any ground of difference having any relation to the objective of the legislation to reduce the City's cost of solid waste disposal."[85]

Further, in taxing only one type of container, New York City did not at all spur recycling, but only could cause a shift away from plastic containers to the untaxed alternatives. As to recycling of plastic containers themselves, the Justice commented that the authors of the act noted that disposed plastic containers are "generally unrecyclable."

Justice Streit concluded, therefore, that, "plaintiffs have established by a preponderance of the credible evidence that Local Law No. 43 is violative of the Equal Protection clauses of the Federal and State Constitutions."[87]

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[82] Id., at 800.

[83] Id.

[84] Id., at 801.

[85] Id., at 802.

[86] Id., at 803.

[87] Id.

Reaching next the assertion of a non-due process "taking" without compensation, the Justice recited the maxim of law that a statute which deprives a person of his property must be reasonably calculated to advance the public's proper purposes. Description of the local law as a valid revenue measure he dismissed as sham.[88] Further, "[u]ncontradicted testimony of witness after witness bolstered by documentary proof, has established that the mere passage of this tax has already cost individual plaintiffs hundreds of thousands of dollars in business (i.e., cancelled orders) and that implementation of the tax will result in the total destruction of the business of many plaintiffs."[89] Justice Streit held, therefore, that this local law is an unjust taking. For the additional reason of vagueness of the term "rigid or semi-rigid plastic," the law was separately in violation of the due process protections of state and federal government, he concluded.[90]

Only plaintiffs' assertions that the law is an undue burden on interstate commerce and (because of the language urging an investigation of disposal charges) is pre-empted by the Federal Solid Waste Disposal Act, were rejected by the court.[91] On all other constitutional, state authorization, and public purpose grounds, the Court held for plaintiffs, declaring the local law unconstitutional, invalid and void, and specifically enjoining the City from enforcing it.[92]

The City of New York did not appeal, and as the enabling act encompasses only cities of a million in population or more, no other communities exist which could have attempted to enact local legislation properly within its authorization. Since the enabling act was not struck down here, New York City would be free to adopt a proper enactment, comprehensively taxing all containers at the rates specified. That it has not attempted to do so may be motivated by the inchoate feeling that the Justice Streit opinion is so strong that its precedential value could be difficult to overcome if the new law were attacked. Then too, the departure of Environmental Protection Administrator Jerome Kretchmer may have undercut the push for such taxes.

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[88] Id., at 804.

[89] Id.

[90] Id., at 805.

[91] Id., at 807.

[92] Id.

It is important to stress that the New York experience does not stand for the unconstitutionality of charges in the solid waste area.. Rather, a sloppy, blatantly confiscatory local law was struck down for penalizing one segment of the container industry while fattening its competitors. Clearly, a far stronger showing of imminent danger to the public health, safety and morals must be made before a community may single out one industry for ruin. But a balanced law which sought to reduce container use in toto, or to provide for recycling of all container types, or even to alter the mix of container materials short of confiscation, is implicitly approved here by the fact that the Court let the enabling act stand and used it as a comparison to detail the local law's shortcomings. Emotionally this case may have undercut support for pollution charges, but legally it has strengthened it.

VERMONT LAND GAINS TAX

In April 1973, in response to a suggestion of Governor Thomas P. Salmon, the Vermont General Assembly enacted a property tax relief act which greatly expanded an already existing property tax relief law theretofore covering only senior citizens. The act grants a credit against a person's income taxes regardless of age*, equal to the amount his property taxes exceed a percentage of his income, according to the following table:[93]

If household income (rounded to the nearest dollar) is:	Then the taxpayer is entitled to credit for property tax paid in excess of this percent of that income
.00 - $ 3,999.00	4%
$ 4,000.00 - 7,999.00	4.5%
8,000.00 - 11,999.00	5%
12,000.00 - 15,999.00	5.5%
16,000.00 - and up	6%

The act also imposes, "in addition to all other taxes imposed by this title, a tax on the gains from the sale or exchange of land in Vermont."[94] The tax is structured so that the rate is higher the shorter the time the land has been held and the larger the percentage of gain, as follows:[95]

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* In the case of claimants under 63 years of age, the claim cannot be taken as an income tax credit until they file for tax year 1975. In the meantime a direct rebate is paid to them.

[93] 32 V.S.A. 5967(a).

[94] 32 V.S.A. 10001.

Years land held by transferor	Gain, as a percentage of basis (tax cost) 0-99%	100-199%	200% or more
Less than 1 year	30%	45%	60%
1 year, but less than 2	25%	37.5%	50%
2 years, but less than 3	20%	30%	40%
3 years, but less than 4	15%	22.5%	30%
4 years, but less than 5	10%	15%	20%
5 years, but less than 6	5%	7.5%	10%

The land gains tax exemplifies the difficulty of ascertaining primary legislative purpose. The stated purpose of H. 155, the bill which became the property tax relief act, was to "limit a person's property tax on his basic housing to five per cent of his household income; and to provide partial funding for such property tax relief by imposing a tax on the gains from certain sales in exchanges of real property." Several legislators, however, — and Governor Salmon, himself — stated at various times that the purpose of the land gains tax was to discourage speculation in Vermont land.

Legality of the Law

The tax was upheld by the Vermont Supreme Court in February 1974 against a challenge that it violated the Equal Protection Clause of the Fourteenth Amendment.[96] The challengers attempted to show that the General Assembly had enacted the tax to deter speculation and that this purpose was so unrelated to the stated purpose of the tax "as to constitute an arbitrary and capricious exercise of legislative power under the Equal Protection Clause."[97] The Washington County Court — the trial court — held that the presumption of the law's constitutionality had not been overcome and the Vermont Supreme Court agreed. Its opinion fully summarizes the legality of utilizing the taxing power to achieve objectives in addition to raising revenue.

Legislation may frequently serve multiple objectives, wrote Justice Daley for the court:

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[95] 32 V.S.A. 10003.

[96] Andrews v. Lathrop, No. 166-73, opinion filed February 6, 1974.

[97] Id., at 2 (in the typewritten opinion).

> There is no requirement that the objectives served by the manner in which a tax is collected and those served by the manner in which it is spent be related to each other for constitutional purposes. Cf. Magnano Co. v. Hamilton, 292 U.S. 40 (1935). The Equal Protection Clause, recognizing that no scheme of taxation has yet been devised which is free of all discriminatory impact, "imposes no iron rule of equality, prohibiting the flexibility and variety that are appropriate to reasonable schemes of state taxation." Allied Stores of Ohio v. Bowers, 358 U.S. 522, 526 (1958). What is required is that the discriminatory classification not be capricious or arbitrary, but rest on some reasonable consideration of legislative policy. Id. Judicial inquiry, therefore, is not directed toward a comparison of legislative purposes, but rather toward the nexus between a classification and such purposes as it may serve.
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> The determination of purpose is a question of law, as it is in the process of statutory construction. The presumption of constitutionality sets the standard for that determination. Inherent within it is the further presumption that the legislature has not acted unreasonably, without purpose. Thus, if any reasonable policy or purpose for the legislative classification may be conceived of, the enactment will be upheld. Allied Stores, supra. We are not here concerned with a classification involving suspect criteria or affecting fundamental rights, such as may nullify the presumption of constitutionality and require a different standard as to legislative purpose. Cf. Veilleux v. Springer, 131 Vt. 33 (1973). Although such purpose is not subject to proof, it must be consistent with whatever indicia of purpose may be drawn from the statute itself and other relevant materials. See e.g., State v. Taranovich's Estate, 116 Vt. 1 (1949).[98]

Legislative purpose is to be divined from examining all of a statutory provision, its subject matter and its effect and consequences, rather than legislators' testimony. In examining the land gains tax structure the court said:

> One apparent effect of the holding period classification is to discourage the rapid turnover of land at high profits. The gains tax is a tax on profits in sale, so structured as to place a burden on the taxpayer which increases as high profit increases, and decreases as the period for which he retains the land lengthens. This alone is sufficient for constitutional pur-

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[98] Id., at 2-3.

> poses to support the view that the Legislature could have had as a purpose the determination [sic] of land speculation.[99]

In addition, the Court took judicial notice "of an increasing concern within the State over the use and development of land as a natural resource, a concern to which the legislature has responded in other instances with appropriate legislation."

The Court then concluded that it would be constitutional for the General Assembly to discourage land speculation via the exercise of the taxing power.

> It is not the function of this Court to pass upon the validity of this concern or the wisdom of the means the legislature has chosen to deal with it, but merely to determine whether the legislature may have acted in response to such a concern and whether in doing so it acted within its constitutional bounds. Lehnhausen v. Lake Shores Auto Parts Co., 410 U.S. 356 (1973); General Mills v. Div. of Employment and Security, 28 N.W.2d 847 (Minn. 1947). It is by now beyond question that the legislature may legislate to achieve particular social and economic ends by the manner in which a tax is imposed, even if such objectives might otherwise be beyond the legislature's constitutional powers. San Antonio School District v. Rodriguez, 411 U.S. 1 (1973); Magnano Co. v. Hamilton, 292 U.S. 40 (1935). The objective may extend to discouragement of what is otherwise, as here, a legitimate economic activity. Magnano v. Hamilton, supra; Virgo Corp. v. Paiewonsky, 384 F.2d 569 (3rd Cir. 1967), cert. denied, 390 U.S. 1041. We find no reason to hold, therefore, that the legislature could not have acted to restrict land speculation by means of the land gains tax structure, within its constitutional powers.[100]

The ultimate issue to be determined, the Court said, "is whether the classification [in 32 V.S.A. 10003] rests on grounds relevant to the achievement of some legitimate State purpose."[101] Having found the purpose to be legitimate, as described above, the Court proceeded to hold that the classification was reasonably related to the achievement of that goal:

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[99] Id., at 5. "Speculation in land," the Court said, "may be adequately here defined as the purchase of land in the expectation of deriving a profit from its later sale at a higher price. Both high gain and a relatively short holding period are essential for such speculation with its inherent risk of market fluctuation, to present an attractive alternative to, for example, depositing the equivalent capital in a savings account and drawing interest on it. See The "Capital Asset" Concept, 59 Yale L. J. 837 (1950)."

[100] Id., at 6.

[101] Id., at 5.

> The tax places a burden on short-term ownership and on high profits in the resale of lands, two attributes of property ownership closely linked to the holding of land for speculative purposes. The taxing of short-term ownership as opposed to long-term ownership, and the taxing of short-term ownership at higher rate, is integral to the deterrent affect. No other objective of property ownership is so directly affected as is land speculation. Indeed, certain provisions of the tax evidence an attempt on the part of the legislature to minimize the tax impact on property owned and sold for other reasons. 32 V.S.A. 10002; 32 V.S.A. 10005(c).[102]

The appellants also specifically questioned the rational basis for a six-year holding period. The standard for judging, the court said, was that "a quantitative distinction created by the legislature will be upheld unless it is so 'wide of the mark'[103] that it cannot be said to tend toward achievement of any legislative purpose it might be said to serve."[104] This the appellants had not shown, the court held.

Finally, the appellants challenged the land gains tax on the procedural grounds that the bill had not originated in the House of Representatives as required by Chapter II, Article 6 of the Vermont Constitution. Since this was the first time such a question had been raised in Vermont, the Supreme Court referred to decisions under similar provisions of other constitutions:

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[102] Id., at 7.

[103] The quoted language paraphrases that of Justice Holmes' dissent in Louisville Gas Co. v. Coleman, 277 U.S. 32 (1928), which the court said is the dominant standard today:

> When a legal distinction is determined, as no one doubts that it may be,... a point has to be fixed or a line drawn,... to mark where the change takes place. Looked at by itself without regard to the necessity behind it the line or point seems arbitrary. It might as well or nearly as well be a little more to one side or the other. But when it is seen that a line or point there must be, and that there is no mathematical or logical way of fixing it precisely, the decision of the legislature must be accepted unless we can say that it is very wide of any reasonable mark. Id. at 41.

[104] Andrews v. Lathrop, supra, note 96, at 8.

> Where the matter has been considered in other jurisdictions, the term 'revenue bills' has been construed as referring to levy taxes in the strict sense of the word, whose primary purpose is to raise revenue to be applied in meeting the general expenses and obligations of the government, and not bills which create revenue incident to other purposes. Millard v. Roberts, 202 U.S. 429 (1905); Twin City Bank v. Nebeker, 167 U.S. 196 (1897); Mikell v. School Dist. of Philadelphia, 58 A.2d 339 (1948) (and cases cited therein).[105]

Since the trial court found the primary purpose of the land gains tax provision was to raise revenue specifically to fund the tax relief program, "the bill was not, therefore, a revenue bill within the meaning of Chapter II, Article 6 of the Vermont Constitution."[106]

Effects of the Law

The land gains tax went into effect May 1, 1973.[107] In the last two weeks of April 1973 land sales boomed in Vermont. They had been rising steadily since 1970, albeit at smaller increases each year. Sale of tracts over 100 acres of unimproved land seemed to be one kind of transaction which has been considerably less frequent since the tax became effective. Commissioner of Taxes Robert G. Lathrop has the impression from the increased number of inquiries to the Department about the tax that more people are taking the tax consequence of selling land into consideration prior to doing so (since the transferor is liable for the tax) and speculative land sales have declined.[108] It would be difficult to assess the impact

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[105] Id., at 10.

[106] Id., at 11.

[107] Section 11, Act No. 81 of the 1973 Session of the General Assembly.

[108] Letter to Will Irwin, Environmental Law Institute, dated July 3, 1974, and telephone conversation with Ross D. Pollack, Environmental Law Institute, August 28, 1974. Commissioner Lathrop:

> From all indications, the sale of residences has not been particularly affected by the tax even though opponents of the tax said that it has made it difficult for Vermonters to buy first homes. However, we believe that the tax has slowed speculative land sales, particularly the larger parcels. While the environmental people still continue to issue a number of development permits and many think that that is evidence of the fact that the land gains tax has not slowed

of the land gains tax on speculation without considerable data on the impacts on sales from inflation, general economic, weather, and energy factors, Lathrop said.

In fiscal year 1973-74 the net receipts from the capital gains tax were $1.222 million.[109] The first $.5 million of this (and the first $.5 million each succeeding fiscal year) funds a comprehensive property mapping program conducted by the Department of Taxes.[110]

> down anything, I am of the opinion that those developments were started before the land gains tax was even thought of and in two or three years we will probably see some slowing down of the volume of those permits.
>
> As you know, it was never intended that the land gains tax completely curtail development, but to simply slow it down and in those areas where people would speculate anyway then the state would tax a heretofore untapped source of revenue to help provide property tax relief. After one year's experience it seems to be working pretty much along that line.

[109] Id. "For the fiscal year just ended, the tax raised about $1.222 million. We had estimated that it would raise about $3 million and I think it would have given a normal economic situation and if there had not been serious court challenges to the constitutionality of the statute and rumblings by the Legislature that it would repeal it."

[110] Section 10, Act No. 81 of the 1973 General Session of the General Assembly. The mapping program is required by 32 V.S.A. 3409.

SECTION VI

CHARGES IN OTHER INDUSTRIALIZED NATIONS

INTRODUCTION

Many of the "effluent charges," "emission fees" or other disincentives which have been reported as existing in other industrialized nations are in fact more analogous to fines or user charges than to disincentives as defined in section II. The laws and regulations of several European nations will be described to demonstrate this.

GERMAN DEMOCRATIC REPUBLIC

Beginning in 1969 in the Halle region on an experimental basis[1] and extended nationwide by December 1970 regulations,[2] East Germany applied "economic levers" to encourage compliance with the effluent limitations imposed in the permits governing dischargers. If a discharger's wastewaters exceed his permitted limits he must pay a fine based on the amount of specific substance in excess times a per unit charge.[3]

Effective May 1, 1973, similar provisions were implemented for emissions of air pollutants (dust and gaseous emissions) exceeding authorized individual limits.[4] This fine is based on the difference between actual and authorized emissions times the hours of the excess times cost factors which vary with the kind of pollutant emitted.[5]

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[1] Christian Science Monitor, November 11, 1970, page 7.

[2] Zweite Durchfuhrungsverordnung (Second Implementing Regulation to the Water Law), 16 December 1970, 1971 Gesetzblatt der Deutchen Demokratischen Republik [hereinafter cited as Gesetzblatt der DDR], Teil II, Nr. 3, 25-29. The regulations are based on sections 19 and 55 of the water law of April 17, 1963.

[3] Id., section 9(2) and (3), and the Anlage. It is reported that 500 industries paid such fines in 1972. Der Spiegel, February 26, 1973, at 51.

[4] Funfte Durchfuhrungsverordnung zum Landeskulturgesetz (Fifth Implementing Regulation of the National Environment Act), 17 January 1973, Gesetzblatt der DDR, Teil I, Nr. 18, section 18.

[5] Erste Durchfuhrungsbestimmung zum Funften Durchfuhrungsverordnung (First Implementing Decree to the Fifth Implementing Regulation), 13 April 1973, 1973 Gesetzblatt der DDR, Teil I, Nr. 19, section 8(3); Anlage .

After January 1, 1968, a person withdrawing land from use as farmland or forest must pay a land use fee based on the kind of land withdrawn (fields, meadows, forests, orchards, etc.) times the number of acres withdrawn.[6]

"[T]he land use charge and the air and water pollution charges ... are considered as economic penalties cutting into the profits of individual enterprises and ... may not be budgeted or passed on to consumers by way of price adjustments. Unlike a general tax, the revenues from both types of charges are earmarked for special pollution abatement, compensation, and environmental improvement measures in the areas concerned. These revenues are channelled through a special fund administered by the State Food and Agriculture Bank. Payment of the charges does not, however, shield the polluter from legal liability for compensation of damages, nor from the obligation to enter into environmental improvement contracts for long-term preventive measures."[7]

HUNGARY

In 1969 Hungary modified the charges and fines it had been imposing on effluents since 1961. It established limits in milligrams per liter of seventeen polluting and fourteen toxic substances and fine rates per kilogram of material discharged in excess of such a limit.[8] As of January 1, 1970, fines must be paid for each pollutant discharged in excess of permissible concentrations. The fines are progressive: the third year a discharger pays he must pay double the fine he would otherwise be liable for; the fourth year, threefold; the fifth and succeeding years, fivefold. The President of the National Water Authority was authorized to establish numerical values for factors modifying the level of the fines based on impact on the quality of receiving waters, impact on assimilative capacity or other factors.[9] The Authority bases the fines on laboratory analyses it makes of effluent samples it may take. The schedule of substances and fine rates is included as Appendix N.

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[6] Verordnung uber die Einfuhrung einer Bodennutzungsgebuhr zum Schutz des land-und forstwirtschaftlichen Bodenfonds (Regulation concerning the Introduction of a Land Use Fee for the Protection of agricultural and forestry resources), 15 June 1967, 1967 Gesetzblatt der DDR, Teil II, Nr. 71, sections 2, 3; Anlage.

[7] Peter H. Sand, "The Socialist Response: Environmental Protection Law in the German Democratic Republic," 3 Ecology Law Quarterly 451, 477 (1973).

[8] State Decree 40/1969/XI.25, Vizugyi Ertesito, Az Orszagos Vizugyi Hivatal Hivatalos Lapja, 8 December 1969, page 254, section 1(2); Appendix. The fine rates are set so that it would be less expensive to build a treatment plant for the wastes than to pay the fine for five years.

Charges on emissions of air pollutants are scheduled to take effect in Hungary January 1, 1975.[10]

CZECHOSLOVAKIA

In 1966 Czechoslovakia promulgated a decree concerning "indemnities" for discharging untreated or insufficiently treated waste waters directly into receiving waters.[11] The indemnities are to be paid by those discharging oxygen-consuming wastes (BOD) or suspended solids (SS).[12] The indemnity rates are based on annual operating and capital amortization costs for a treatment plant to adequately treat the discharger's BOD or SS wastes. Indemnities must be paid even if a permit has been issued for the discharges; fines are levied for violating the permits. A discharger may have to pay an additional surtax of up to 100 per cent of his annual charge based on the extent to which his discharges degrade stream quality.

Proceeds from the indemnities go to the Water Economy Fund, a special fund separate from the regular budget and used for contributing to the costs of municipal or industrial waste treatment measures. In addition to supporting this Fund, the indemnities serve the purpose of equalizing prices between goods produced by factories without the costs of adequate treatment facilities and those with those costs, and of encouraging dischargers without adequate treatment to install it. The Czechoslovak decree is included as Appendix M.

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[9] *Id.*, section 2. These modifying factors were promulgated as an appendix to Departmental Order of the President of the National Water Authority No. 1/1969/XI.25./.

[10] Section 9, Ministertanes 1/1973. (I.9.) szamu rendelete, in *Magya Kozlony*, January 9, 1973, at page 20.

[11] Decree No. 16 of March 12, 1966, based on paragraph 27, chapter 2 of the Water Act 1955 (No. 11).

[12] *Id.*, paragraph 2. At the discretion of a river authority, up to fifty tons of BOD and 300 tons of suspended solids may be exempted.

FRANCE

France's 1964 water law[13] divides the nation into six river basins, each of which is administered by a basin financial agency. These agencies' functions include doing research, aiding treatment works financially and managing the financial aspects of water management programs, including preparing and administering a system of fees (redevances). The total amount of fees to be collected from users of waters for water supply or waste disposal or other purposes is based on a multi-year plan for agency loans and subsidies. Article 14 of the law makes clear that these fees are essentially user charges: "Each agency shall establish and collect dues from public and private persons to the extent to which the said ... persons make action by the agency necessary or useful or to the extent to which such action is of benefit to them."

The charges for wastewater discharges are figured on the basis of quantity and quality of the wastewater, effect on the receiving waters and local water conditions.[14] Private enterprises which discharge directly into a receiving water or discharge into a municipal sewer system without paying a sewer user charge and municipalities are both assessed a gross charge (redevance brut) based on total discharges of BOD and suspended solids (and salts in some basins) against which is credited an amount based on how much waste is removed by treatment prior to discharge (prime pour epuration). Municipalities are charged on the basis of the population equivalents of their discharges, unless they have taken responsibility for a non-domestic source, in which case the charge for it is added. Industrial dischargers are charged on the basis of their production times a coefficient reflecting the normal wastewaters from the kind of establishment, unless they wish to have their wastes specially analyzed. The amount of the charge per kilogram of waste varies from basin to basin with the annual costs of the programs which are to be funded. Within a basin charge rates vary depending on whether the discharge is into a protected zone of water or not.

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[13] Loi No. 64-1245 relative au regime et a la reparation des eaux et a la lutte contre leur pollution, 16 December 1964, Journal Officiel de la Republique francaise No. 295, 18 December 1964, page 11258.

[14] The standards for establishing the redevances were promulgated in Decret No. 66-700 du 14 Septembre 1966 relatif aux agences financieres de bassin crees par l'article 14 de la loi no. 64-1245 du 16 decembre 1964, Journal Officiel du 23 Septembre 1966, article 17 *et seq.*

THE NETHERLANDS

The Netherlands' 1969 law against pollution of surface waters,[15] in order to generate revenues for a fund to make grants to public and private entities to assist with the construction of wastewater treatment facilities,[16] provides that direct dischargers into nationally-owned waterways must make payments to the national government based on the population equivalents of oxygen consuming wastes or the number of units of other wastes discharged.[17] Public entities whose treatment facilities discharge into national waters may collect the charges from those who are connected to the facilities, or may ask the national government to do so. Persons discharging directly or indirectly into surface waters owned by the provinces must also make payments based on oxygen-consuming wastes to the provinces or their designated water boards to help defray the costs of operating treatment facilities, making the annual payments on loans for construction, and administering the provinces' water quality programs. All dischargers are required to have permits authorizing their discharges.[18]

The Netherland's 1970 Air Pollution Act similarly provides that emitters of air pollutants must pay levies which finance the implementation of the act and the measures taken to prevent or limit air pollution.[19]

A law recently passed but not yet put into effect by royal decree will require the payment of up to a 25 per cent tax on the costs of buildings to be erected in the western part of the Netherlands, as a means of slowing congestion in that part of the nation.[20] The tax will be paid by the one who must obtain a license to construct the building.

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[15] Law No. 536, November 13, 1969, 1969 _Staatsblad van het Koninkrijk der Nederlanden_, at page 1321.

[16] _Id._, section 17. Anticipated needs for revenues from 1970-1985 were one billion guilders. Because of the need to catch up on construction the charge rates have increased rapidly each year.

[17] _Id._, section 19. Residences may be alternatively assessed on the basis of number of rooms or tax assessed values. The regulations implementing this section were promulgated November 6, 1970. No. 536, 1970 _Staatsblad van het Koninkrijk der Nederlanden_, at page 1209.

[18] _Id._, section 1.

[19] _Problems of the Human Environment in the Netherlands: A National Report_, United Nations Conference on the Human Environment, Stockholm, June 1972, F/4107/71, at pages 60-61.

[20] Act on Selective Investment Regulation.

FEDERAL REPUBLIC OF GERMANY

In the Land of Northrhine-Westphalia in the Federal Republic there are several public corporations which have been created by the legislature to carry out various water management assignments in the river basins of small tributaries of the Rhine.[21] Membership in these associations is prescribed by the special laws establishing them; the Ruhrverband, for example, contains mines, commercial enterprises, and other installations which contribute to pollution of the Ruhr River; municipalities lying in its watershed; and an association of waterworks on behalf of all those who withdraw water from the river and its tributaries for purposes other than producing power.[22]

The functions of the various associations are based on a general determination of the principal use of the rivers. The Ruhrverband, for example, is assigned by law to keep the Ruhr River clean for water supply purposes while the Emschergenossenschaft's principal assignment is to assure proper drainage of wastewaters. Of course, these various functions dictate what programs each association carries out and what construction projects it undertakes. The Ruhrverband builds sewage treatment plants all along the river while the Emschergenossenschaft principally builds and maintains drainage courses (although it has recently built a large treatment plant at the mouth of the Emscher to reduce the burden of wastes it dumps into the Rhine).

The membership of an association meets annually in assembly and votes to approve a budget. This budget is met largely through assessments collected from the members of the association, although for certain projects the Land of Northrhine-Westphalia may provide financial assistance. How the burden of the budget is borne depends on the particular bylaws of an association, but in general one is assessed according to the relative burden he imposes on the program of the association or the benefit he receives from it. A person on low land receives relatively more benefit from the efforts of a drainage association, for example, than one on high land, and is accordingly assessed a larger share of the budget to bear.

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[21] See generally, Gordon M. Fair, "Pollution Abatement in the Ruhr District," in H. Jarrett (ed.), Comparisons in Resource Management (1961) at 142-171; Allen V. Kneese, Managing Water Quality: Economics, Technology, Institutions (1968), at 237-253, 258-262.

[22] Section 4, Ruhrreinhaltungsgesetz of 5 June 1913, Preussische Gesetzsammlung, at p. 305.

There are two basic ways associations which have water quality management functions distribute the costs of carrying out these functions among their memberships; (1) according to the expenses which accrue (or would accrue) from treating a particular member's wastewaters; or (2) according to some measure of the effect (or harmfulness) of the member's wastewater discharges. The Linksniederrheinischeentwasserungsgenossenschaft follows the first approach, the Ruhrverband and the Emschergenossenschaft the second for example. There are varying degrees of refinement in distributing the costs of an association's wastewater treatment activities according to the effects of a member's wastes. Some associations simply multiply the volume of an industry's wastewaters times a factor based on the kind of industry. Others, such as the Ruhrverband, add up the pollution unit values (based on information provided by the members' annual reporting forms), divide the sum into the figure which represents the total budget needs for the year (in order to arrive at a "rate" for each unit of pollution), and then multiply this rate times the units discharged by each discharger. If a discharger is able to reduce his pollution load, he obviously reduces the share of the budget he will be assessed. There are likewise complicated formulas for what the municipalities' shares are.

It should be clear from the above that the assesments which members of water management associations pay are not disincentives but rather user charges to help fund the activities which the associations are required by law to carry out. The amounts of assessments paid by the members of the Ruhrverband to support a staff of 900, the operating expenses of over a hundred sewage treatment plants, and the annual payments on the loans to build those plants are not insignificant, but they are spread over more than 1200 members and so do not constitute nearly the burden individual treatment plants would be for each member. The associations are quasi-public entities with specific mandates to manage water for the public welfare. As such they may assess those who use the facilities they build and the services they provide in proportion to the amount of that use.[23]

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[23] For more details on the water management associations of Northrhine-Westphalia and their assessment systems see, Irwin, Charges on Wastewaters in Europe, forthcoming as Environmental Law Institute Monograph No. 2.

SECTION VII

ECONOMIC DISINCENTIVES: POLITICAL AND ADMINISTRATIVE DIMENSIONS

INTRODUCTION

This section discusses aspects of the political and administrative feasibility of federal or state adoption of disincentive measures in matters within the jurisdiction of the U.S. Environmental Protection Agency. It begins with a brief review of the conceptual bases of disincentives (particularly those using the mechanism of effluent charges). It then describes Congress' treatment of proposed taxes on sulfur emissions and on lead in gasoline, and Congress' reaction to the Environmental Protection Agency's proposal to impose parking surcharges as elements of transportation control plans to achieve ambient air quality standards. It concludes with brief discussions of the feasibility of adopting disincentives under the statutes EPA administers.

THE ROLE OF ECONOMIC DISINCENTIVES IN ENVIRONMENTAL REGULATION: PRINCIPAL CONCEPTUAL ISSUES

Environmental quality management, like other areas of governmental regulation, is susceptible to manipulation by public and private parties seeking to minimize the adverse economic impact upon them of strict control. Environmental quality management can be more symbolic than substantive if the regulatory procedures established are weak and resources devoted to their operation are inadequate. With increasing frequency, pollution charge proposals dot the landscape of the economic and environmental control literature. Economic disincentives schemes are preferred by some to schemes of environmental regulation based on standard setting and civil and criminal enforcement of compliance, ostensibly because polluting interests would have a lesser incentive to delay achievement of environmental quality goals than they have had under regulatory systems. The following subsection discusses the weaknesses of past regulatory systems and the general strengths and limitations of charge systems as alternatives or supplements to existing regulatory systems. It is designed to provide an overview of the principal assertions that have been made on the several sides of the pollution charge debate. The succeeding subsections illustrate how these agruments figured, along with political factors, in the fate of proposals for sulfur taxes, parking surcharges, and lead additive taxes.

Regulatory Systems

Enforcement of pollution control laws prior to 1970 was an exercise in futility. In the area of water pollution, federal jurisdiction was considerably limited, no effluent standards existed, no provision was made for civil penalties, and the conference-hearing procedures established to promote abatement were "cumbersome and time-consuming."[1] To achieve compliance, the government's most powerful tool was the judicial cease and desist order, noncompliance with which was punishable as a contempt of court.

The Council on Environmental Quality has stated that the procedure under which enforcement had been carried out was less than satisfactory. There was no clear pattern to the convening of enforcement conferences, but in the early days of the water pollution control program these conferences apparently avoided focusing on major, heavily polluted water courses.[2] In many cases abatement schedules, once established, were substantially disregarded. The ultimate step in enforcement was filing of an abatement suit in federal court. This point was reached only once, in a case concerning municipal pollution from St. Joseph, Missouri. This instance demonstrates how cumbersome the enforcement process could be. The initial abatement conference was held in 1957, but shortly thereafter St. Joseph citizens rejected an environmental bond issue that would have funded sewer construction and primary sewage treatment facilities. The second abatement step, a public hearing, was reached in 1959, but one year later a bond issue was again rejected. Suit was then filed and a court order obtained requiring completion of municipal treatment facilities by 1963. By 1967, the treatment plant was completed, but only half of the necessary sewer connections had been made. Court action was again necessary, producing an order to the city to expedite work. City officials replied that they could not complete all the projects necessary to provide comprehensive primary treatment until 1973.

Air pollution control was sadly similar. Federal jurisdiction was limited, the conference-hearing procedure was cumbersome and time-consuming, and no civil penalties could be levied. Only one enforcement action, involving Bishop Processing Corporation in Maryland, was undertaken by the federal government and this also took many years to complete.[3]

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[1] Council on Environmental Quality, First Annual Report -- 1970 at 53.

[2] See David Zwick and Marcy Benstock, Water Wasteland (New York: Grossman, 1971), chapter 6.

Enforcement has always been the most politically sensitive aspect of federal pollution control programs, and the choice of targets for enforcement actions has been determined not only by the seriousness of the problem in an area but by the possible political ramifications of initiating an enforcement case. In general, the primary purpose of the federal enforcement actions, when they occurred, was to prod state and local control agencies into taking action; there was greater reliance placed on informal bargaining rather than on legal proceedings. Informal negotiation was also often preferred to a judicial process that could impose a considerable demand on limited time and manpower resources and which placed a heavy burden of proof on government enforcement personnel.

Even the strongest set of regulatory powers would be meaningless, absent a commitment of manpower and resources to carry them out. In an August 1973 report, the General Accounting Office found in seven states it surveyed a lack of complete emissions inventories of sources of air pollution, insufficient enforcement resources, and inadequate surveillance of air polluters.[4] The report alleged in addition that there was too great a reliance on voluntary compliance and negotiation.

Effluent and Other Pollution Charges

The failure of the regulatory systems of the 1950's and 1960's has led to development of new, tougher regulatory frameworks that include effluent standards and civil penalties. But it has also been suggested that these be supplemented or supplanted by systems of pollution charges or similar disincentives according to which polluters would be required to pay for each unit of pollution discharged to the environment.

The original rationale for some form of pollution charge is found in the literature of welfare economics.[5] There it is argued, for

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[3] For a discussion of federal enforcement efforts in general, see J. Clarence Davies, The Politics of Pollution (1970), especially the chapter on compliance. For a muckraking view of enforcement efforts in the air arena, see John Esposito, Vanishing Air (New York: Grossman, 1970).

[4] Reported in the Washington Post, August 29, 1973.

[5] This discussion is based on review of the following material:

Allen V. Kneese, "Strategies for Environmental Management;" A My-example, that air and water pollution occurs because air and water are treated as free goods in production decisions; their use as

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rick Freeman III and Robert H. Haveman, "Water Pollution Control, River Basin Authorities,and Economic Incentives: Some Current Policy Issues," Marc J. Roberts, "Organizing Water Pollution Control: The Scope & Structure of River Basin Authorities," *Public Policy*, XIX: 31 (Winter 1971).

Hearing on Economic Analysis and the Efficiency of Government before the Subcommittee on Priorities and Efficiency in Government of Joint Economic Committee, U.S. Congress, 92nd Cong., 1st Sess. (Part 6 - Economic Incentives to Control Pollution) (July 1971).

Harold Wolozin, "The Economics of Air Pollution: Control Problems," Paul Gerhardt, "Incentives to Air Pollution Control," George Hagevik, "Legislating Air Quality Management: Reducing Theory to Practice," *Law and Contemporary Problems* 33: 227, 358, 169 (Spring 1968).

Edward Selig (ed.) *Effluent Charges on Air and Water Pollution* (Washington: Environmental Law Institute, 1973).

Allen V. Kneese *et al*. *Economics and the Environment* (Baltimore Johns Hopkins Press for Resources for the Future, 1970).

James C. Hite *et al*., *The Economics of Environmental Quality* (Washington: American Enterprise Institute for Public Policy Research, 1972).

Frederick R. Anderson, Allen Kneese, Russell Stephenson and Sarge Taylor, *Economic Incentives for Environmental Control: Legal, Economic, Technical and Political Aspects* (Baltimore: Johns Hopkins Press for Resources for the Future, forthcoming).

Talbot Page "Economics of Recycling," in *Resource Conservation, Resource Recovery, and Solid Waste Disposal*. Studies prepared for the U.S. Senate Committee on Public Works by the Environmental Policy Division of the Library of Congress Congressional Research Service, Committee Print, (November 1973).

Robert H. Haveman and Julius Margolis (eds.), *Public Expenditures and Policy Analysis* (Chicago: Markham, 1970).

H. Rep. No. 89-1330, "Views of the Governors on Tax Incentives and Effluent Charges," Twenty-First Report by the Committee on Government Operations, 1966.

receptacles for human wastes, disposed consumer goods and the by-products of industrial production has no price attached to it and thus neither private nor public waste producers have any economic incentive to reduce their abuse of these resources' assimilative capacities. While the use of these media imposes no costs on producers, costs are imposed on society at large, in the form of increased medical bills, increased maintenance requirements for materials, and restricted uses of common property resources. Moreover, in the case of industrial production, because these production costs are passed on to society generally, the market price to the consumer of the products manufactured does not reflect the total social cost of production; the result may be the oversupply of environmentally costly goods to satisfy a demand induced by artificially low prices. Similarly, the costs of public waste disposal services may be kept artificially low.

By attaching a price to the use of hitherto free atmospheric and hydrospheric resources, it is argued, their abuse and the costs unilaterally imposed upon society by polluting producers can be reduced. In some proposals, the price takes the form of a fee per unit discharge and is an approximation of the damage caused by a polluter's effluents and emissions. Once the amount of damage is determined the price can be set at which a maximally efficient solution to the pollution problem exists. At this price, each polluter will abate his discharges to the point where the marginal cost of abatement is equal to the marginal cost of social damage. For further abatement below this level of discharge, the cost to the polluter of each additional unit of abatement will be greater than the reduction in social damages resulting from such abatement. It will be cheaper -- and economically more efficient -- to pay a fee on the remaining residuals than to abate them.

The efficiency of pollution charges has made them theoretically far more appealing to economists than regulatory schemes in which all polluters have to reduce their effluents by a uniform percentage to meet a legislatively or administratively determined standard. While having apparent equity, such uniform reductions can be quite an inefficient means of achieving standards, for they ignore

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A. Myrick Freeman and Robert H. Haveman, "Residuals Charges for Pollution Control: A Policy Evaluation," Science, 177:322 (July 28, 1972).

Robert M. Solow "The Economist's Approach to Pollution and its Control, Science, 172:498 (August 6, 1971).

the differences in marginal abatement costs that exist for large and small dischargers.

Proponents of pollution charges have also argued that they provide a powerful incentive to abate pollution quickly because they impose an immediate economic cost on dischargers. Under regulatory schemes, it is contended, dischargers do not have such a strong motivation to abate, but rather have a considerable incentive to delay implementation of required pollution control schemes. Rulings will be judicially contested, variances sought, and other efforts at delay will be employed, so as to postpone an investment in pollution control equipment which represents either a company's use of capital from which it receives no financial return or a significant burden on a municipality's budget.

Yet another argument made for pollution charges is that they provide a continuous incentive to abate pollution. Functioning alone and not in conjunction with a system of ambient air or water quality standards, the continuous cost they impose on a polluter provides him with an incentive to find new ways of reducing his total effluent discharge.

Proponents of pollution charges also contend that they provide considerable flexibility in achieving abatement. Each company could decide for itself how to abate in order to reduce its charges. Because the assimilative capacity of a water course or air shed may vary with hydrological or meteorological conditions, a uniform percentage of effluent or emission reduction or a specified level of treatment that might be required by a regulatory scheme may produce abatement action which is overly effective and expensive during one season, yet is grossly inadequate at another time of year. In contrast, charge levels might theoretically be adjusted to produce discharger abatement behavior better adapted to changing environmental conditions.

The principal argument against true effluent charges is that it is so difficult to establish societal damage functions that the level for the effluent charge based on such functions cannot be found. Even the strongest proponents of effluent charge systems concede that this is true, but respond that surrogate damage functions can be established. Often these surrogate damage functions can be established to work in conjunction with some form of ambient or effluent standard system; the price per unit of discharge is set at a level whereby it becomes more expensive for polluters to pay the charge than to install the pollution control equipment that will permit water quality or effluent standards to be achieved.

The demand for surrogate damage functions serves to undercut one of the arguments made in favor of pollution charges -- namely that they reduce the information burden of regulatory agencies and lay it principally on polluters. The regulatory agency, to establish an artificial price, must have considerable knowledge about industrial abatement costs so as to enable it to establish charge rates which will induce pollution abatement by dischargers. This information demand is not so great, however, when the pollution charge takes the form of a municipal user charge for treatment of industrial wastes in the municipal sewage treatment plants. A municipality, in the course of designing and operating its plant will have developed cost estimates. These function as surrogates for the environmental damage avoided by effluent treatment and can be apportioned among industrial dischargers.

The need to establish surrogate damage functions also undercuts somewhat the contentions of charge proponents that an effluent charge might bring about faster polluter response than some form of standard-based regulation. Promulgators of pollution charges will have to experiment with alternative charge schedules until they find the schedule that produces the amount of abatement they consider desirable. The period of time between rate establishment, initial polluter response, rate adjustment and additional polluter response may be considerable. In addition, the tentative nature of the charge structure may confound business planning because of uncertainty over future abatement and fee costs.

Pollution charges may also be used as an incentive in situations where the technology for pollution abatement has yet to be developed. Because investment in pollution control research may be a highly risky investment in which little or no profit may be found, polluters having no economic incentive to do so may not devote much of their resources to the necessary research effort and may use the resultant abasence of suitable technology as an excuse for not abating their pollution. Pollution charges in such a situation might be arbitrarily selected by the legislature as a prod to industries to devote funds to an adequate research effort.

The rationale behind all pollution charge schemes is that businessmen are profit-motivated and city managers cost-conscious and that if it is more expensive to pay an effluent fee than abate pollution, abatement action will be taken. While some studies of sewage treatment plant user charge schemes have suggested that this will be the case, the matter of business response is still the subject of debate. First, business response to a fee system will be dependent upon the size of the fee, its predictability, and the opportunities provided within the statutory and regulatory structure under which the fee is levied to delay its imposition or influence its magnitude.

Second, business response will be conditioned by the nature of a polluter's market. A monopoly business may respond differently to a fee than a non-monopoly business. Third, business response will be conditioned by regulatory factors. If a polluter's product price structure must be approved by a government regulatory commission, his ability to pass on his abatement costs or fee payments will influence his response to the fee.

The effectiveness of a fee system for achieving environmental goals will also be contingent in part on the mix of sources that contribute to the pollution of a particular medium. If a large portion of the pollution in a medium is attributable to non-point source pollution, a fee system for polluting discharges from point sources may have to be supplemented by a regulatory system for the control of nonpoint sources.

Another argument made against pollution charges is that the monitoring required will be too difficult or expensive to be practical. Any effective pollution control system will require some system of monitoring and it can be implemented by means which fairly apportion the burdens, e.g., via self-reporting by dischargers complemented by periodic governmental spot-checks. Charges can also be based on formulas derived from various measures of plant activity. Allegations as to the monitoring burden must be evaluated on a case by case basis.

The strongest argument usually made against pollution charges is that they impose a double burden on polluters. That is, the polluter is expected to invest his oftentimes limited resources in pollution abatement while he is simultaneously paying the government for his polluting discharges. Both industrial and municipal interests argue that it is unfair to make capital demands for pollution charges while also expecting investment in pollution control equipment on which little return is gained.

The double burden argument may indeed be applicable in some industries for which effluent charge payments may comprise a considerable portion of work capital or total investment. However, the argument must be evaluated on an industry by industry basis, for in some industries, there might be sufficient capital available and so little invested in pollution control, that the double burden argument is more rhetorical than substantive. Furthermore, the double burden argument against an effluent fee can be defused somewhat by establishing a fee system in which the effluent charge starts at a low level and then rises over time. The initial capital impact on industry will be slight while the industry is on notice that if it does not accelerate its pollution control efforts, its burden may become heavier.

In considering the efficacy of a charge system, the desirability of application to municipal dischargers must also be considered. While application of a fee solely to industrial dischargers may lead to allegations of discrimination in favor of municipal dischargers, charges on municipalities may not be as efficacious as those on industrial dischargers. The ultimate aim of an effluent fee is to provide an incentive for the discharger to find the most efficient means of abating his pollution. For the industrial discharger, the abatement process might include an end of the pipe control process, but it might also entail a process change, increased recycling and waste recovery, changed inputs, or other adjustments. The spectrum of choices available to municipalities amy not be as wide as the spectrum for industries because the inputs in the form of human wastes can scarcely be modified. Municipal response to an effluent charge, furthermore, might be different from industrial response, for it might have to be conditioned upon voter approval of a bond issue. Also, to the extent that municipal response is governed by allocation of federal sewage treatment plant subsidies, it is contingent upon congressional appropriations and the smooth functioning of the federal bureaucracy in the timely allocation of construction grant funds.

The considerations of fairness embodied in the dispute over municipal effluent taxation can be found as well in discussions over the scope of pollution charges. Should they be national or regional, or should both national and regional charges be developed? National charges may be inequitable because they take insufficient account of differences in the regional impact of pollutants, but regional charges may not be functional because political considerations, i.e., fear of industrial loss, may preclude their being levied. The levying of regional charges also raises the question of political and administrative responsibility. If a regional organization fixes assessments, how are its boundaries to be defined and how are states and local interests to be represented?

The discussion that follows of sulfur emission taxes, lead additive taxes, and parking surcharges demonstrates how many of the points raised above figured in deliberations over three specific federal disincentive proposals.

POLITICS OF DISINCENTIVES

Sulfur Emission Taxes

Sulfur oxides constitute a threat to human health and can damage vegetation and property. The cost to human health of sulfur oxide emissions is estimated at over $3.3 billion annually and property and vegetation damage is estimated to amount to an additional $5 billion.[6] An estimated 36,600 t of sulfur oxides are emitted to the air each year; these cause about one-half of all damage attributed to air pollution.[7] Without controls, emissions are expected to quadruple by the year 2000.[8]

55 per cent of the sulfur oxides are emitted by power plants, 11 per cent by smelters, 7 per cent by refineries, 22 per cent by other combustion sources and 5 per cent from other miscellaneous sources.[9]

While in the early 1970's a need was felt to control pollution from sulfur oxides, the technology had not yet been perfected to desulfurize fuels or stack emissions. The absence of such technology prompted the development of competing proposals for charging polluters for their sulfur emissions, as a means of providing them an incentive to research, develop, and invest in pollution control technology. The Nixon administration proposal sought to piggyback an emission charge onto the regulatory structure created by the Clean Air Act of 1970. The emission charge proposals of environmentalists, in contrast, were not linked to the Act. The debate over the competing proposals highlights several problems that must be confronted in designing economic disincentives for pollution control; these include the disincentives' appropriate level, geographic scope, timing and microeconomic impact.

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[6] Council on Environmental Quality, The President's 1971 Environmental Program at 26. EPA figures for 1970 published in May 1974 differ somewhat from these CEQ figures. An EPA researcher provided a "best estimate" of \$1.9 billion for the human health cost of sulfur oxides, and high and low estimates of \$3.1 billion and \$0.7 billion respectively. The EPA researcher estimated material and property damage to be \$3.5 billion with a high estimate of \$4.9 billion and a low estimate of \$2.1 billion. Vegetation damage was estimated to be negligible. See Thomas E. Waddell The Economic Damages of Air Pollution (Environmental Protection Agency Office of Research and Development Socioeconomic Environmental Studies Series, Report No. EPA-600/5-74-012, May 1974) at 130.

[7] The President's 1971 Environmental Program, id. These emission estimates are somewhat higher than EPA's estimates for 1970 that were published in January 1973. EPA researchers estimated emissions for 1970 of 33,900 t, almost all of which resulted from fuel combustion in stationary sources and from industrial process losses. See J. H. Cavender, D.S. Kircher, and A.J. Hoffman, Nationwide Air Pollution Emission Trends 1940-1970, Publ. No. AP-115, (Environmental Protection Agency, Research Triangle Park, January 1973). Cited in Waddell, id. at 127..

[8] Id.

[9] Id.

Initial Administration Proposal -- President Nixon first mentioned administration plans for a tax on sulfur emissions in his environmental message to Congress of February 8, 1971, but it was not until the following year that a formal legislative proposal was submitted. Delay was occasioned by differences within the administration concerning the form of the proposed tax.[10]

Initially the intention was to have a national, uniform tax on sulfur oxide emissions that would be imposed at a low level in its first year but would rise rapidly over a period of five years. The Commerce Department opposed this proposal, arguing that it unfairly singled out a few industries. The plan was also vigorously opposed by industrial interests, especially copper companies, who argued that there should be no tax in regions where air quality surpassed the primary and secondary ambient standards for SO_2 established pursuant to the Clean Air Act. Under the Act, states were to develop implementation plans for each region to meet by 1975 the primary air quality standards for SO_2 and other pollutants, though extensions of up to three years for meeting these deadlines could be granted by the EPA Administrator. Industry argued that since no damage presumably occurred when the standards were not breached, there was no rationale for taxing emissions in regions having clean air. Opponents of the plan also contended that it should be modified to take account of a possible mid-1970's shortage of low sulfur fuels. A uniform national charge would increase demand for scarce low sulfur fuels even in areas where they were not needed for achievement of ambient air quality standards.

1972 Administration Proposal -- For sulfur tax purposes, the 1972 administration proposal divided the nation into three classes of regions: those whose sulfur oxide levels exceeded primary ambient air quality standards and therefore represented a health hazard; those whose sulfur oxide levels did not exceed the primary standards but which exceeded the secondary standards above which SO_2 concentrations cause vegetation and property damage; and those "clean air" regions in which sulfur oxide levels are below the secondary standards.[11]

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[10] John F. Burby, "Environmental Report/White House, Activists Debate Form of Sulfur Tax; Industry Shuns Both," National Journal, 4:1643 (October 21, 1972).

These three types of regions were for sulfur tax purposes respectively labeled class I, class II and class III regions. A sulfur tax was to be levied in 1976 in class I and class II regions. In class III regions, no tax whatsoever was to be levied, for absent SO_2 control technology development, if such a tax were levied, dischargers in relatively clean regions would compete for limited low sulfur fuel supplies with polluters in dirtier class I and class II regions. Also, there was little purpose requiring polluters to abate pollution in clean air regions if there was no threat to human health, property or vegetation from the pollution.

Fuels used in class I regions were to be taxed at a rate of 15 cents per pound of sulfur and fuels used in class II regions were to be taxed at a rate of 10 cents per pound. Air quality regions established pursuant to the Clean Air Act could also be subdivided into two or more sulfur tax regions to isolate heavy polluters, the magnitude of whose emissions might otherwise force installations in the larger region to pay higher taxes. The proposal also provided for the levying of additional taxes where sulfur oxide levels rose from one year to the next; the penalty was to be 5 cents per pound in a region that changed from class II to class I, 10 cents per pound for a region which changed from class III to class II and 15 cents per pound for a region which changed from class III to class I.

The tax would be levied on sales of fuel. Sellers of fuel would register with the government for this purpose. Sales to buyers having stack emission monitoring capability would not be taxed. Such registered buyers would only have to pay a tax on actual emissions as measured by their monitoring equipment. They would thus be encouraged to remove as much sulfur as possible from their stack gases. Emissions from industrial, non-fuel sources would also be taxed on this basis. Finally, if they desired, states could levy their own sulfur taxes to supplement the federal levies.

The tax's purpose was to provide industry with an incentive to research, develop and invest in pollution control equipment. In the absence of proved SO_2 control technology, industry had little incentive to invest in control equipment, until it had been tested for some time. Enforcement was likely to be hampered by polluters' subsequent arguments concerning the technological feasibility of compliance with clean air standards. The administration saw the tax as providing pressure on industry to demonstrate and use technology as soon as possible to avoid the charge.[12]

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[11] The text of the administration bill is found in the Council on Environmental Quality's The President's 1972 Environmental Program at 44.

At the time of the Clean Air Act's enactment, no feasible technology for control of SO_2 emissions had been demonstrated. While several processes for flue gas control of SO_2 had been developed and some were being marketed, little consistent information existed on their costs, efficiencies and technical problems. The uncertainties delayed both the perfection of available approaches to reducing emissions and the commitment by utilities to implement whatever controls were available.[13]

Historically, electric utilities have invested little money in research and development, preferring to rely for research on their equipment suppliers. In 1970, the industry spent .23 per cent of its gross revenues, $46 million, on research and development, and only a small proportion of this was devoted to pollution control.[14] The Office of Science and Technology called the .23 per cent figure "a remarkably small percentage by most industry standards," representing less than one-tenth of the average for American industry as a whole.[15] In contrast, the utilities spent $395 million in 1970 on advertising, eight times their research and development expenditures.[16] The utilities claim that the regulatory process discourages expenditures for research and development, but the Office of Science and Technology responds that R&D expenditures have generally been included in cost of service for rate-making purposes by the Federal Power Commission and by state commissions.[17]

The Administration's 1972 proposal encountered considerable opposition and no Republican sponsors for it could be found in the House of Representatives; it was therefore introduced into the

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[12] Id.

[13] The Council on Economic Priorities, The Price of Power (1972) at 19.

[14] Id. at 76.

[15] Id.

[16] Id. at 92.

[17] Id. at 87.

House by three Democratic, environmentally-oriented congressmen.[18]

1973 Administration Proposal — In 1973 the administration revised its proposal, the 1972 version having died in the House Ways and Means Committee. The 1973 version called for a charge of 20 cents per pound of sulfur emitted, to take effect in 1976 in regions where the national primary standard for sulfur oxides had not been met by the 1975 Clean Air Act deadline.[19] After 1978, in regions which met the primary standards but exceeded the secondary standards, a charge of 20 cents per pound would also be imposed. As in the previous proposal, regions meeting both standards would be exempt from a charge, as a means of alleviating demand for scarce low sulfur fuel supplies.

Coalition to Tax Pollution Proposal — Competing with the administration proposal was one developed by the Coalition to Tax Pollution and introduced into Congress by Representative Les Aspin and Senator William Proxmire.[20] The proposal would levy a charge of 20 cents per pound on the sulfur content of fuel. The fee would be set at 5 cents per pound in 1972 and increased 5 cents each year until 1974, when it would reach a level of 20 cents per pound. The tax would continue to be imposed even after Clean Air Act standards were met. Senator Proxmire, introducing the proposal, noted that the ultimate level of 20 cents per pound represented more than it would cost industry to abate sulfur pollution. He contended that the most expensive abatement means, fuel oil desulfurization, was estimated to cost 11-19 cents per pound of sulfur removed. The 20 cents per pound charge was reportedly based on two studies, one by EPA and one by NAS, which suggested respectively that each pound of sulfur in the air caused 25 cents of health and property damage and that the average cost of removing the sulfur would be 5-15 cents per pound.[21]

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[18] Burby, supra, note 5 at 1643. The SO_2 tax bill was reintroduced by the three Representatives, Dingell, Reuss and Moss into the 93rd Congress as H.R. 5334, March 7, 1973.

[19] The 1973 version is described in the Council on Environmental Quality's The President's 1973 Environmental Program at 20. A search of the Library of Congress' Digest of Public General Bills reveals no record however of the bill actually being introduced into the House, although the 1972 version was reintroduced as H.R. 5334.

[20] The text, and Proxmire's introductory comments, can be found at 118 Cong. Rec. S276 (daily ed. January 24, 1972). Proxmire's bill was S. 3057 and Aspin's H.R. 10890.

[21] Id.

In addition to promoting technological development, the tax was also seen as encouraging a least cost solution to environmental quality problems. Instead of a state requiring all sources to reduce emissions by 75 per cent, or ordering exclusive use of low sulfur fuels, operation of the tax would encourage polluters to find the least cost solution for themselves.

Congressional Response -- Neither of these taxation proposals ever moved beyond the House Ways and Means Committee, which never held hearings on them. The fee was roundly opposed by all industrial groups and obtained only mixed support from environmentalists.[22] It is alleged that the present committee chairman, Wilbur Mills, views with disfavor any efforts to use the tax system to curb pollution.[23] While the existence of pollution control tax write-offs and other subsidies would belie this belief, it is apparent that Chairman Mills certainly does not have any great liking for pollution control proposals which would have a considerable adverse economic impact on American industry.

The sulfur tax was viewed by CEQ as a first test of the effluent tax concept. Relatively easy to administer because of the few polluting sources involved, it was hoped that if it gained congressional approval, then some effort might be expended to develop the concept for other more complex and diverse sources of pollution.

Conceptual Problems -- Geographic scope and level of fee -- A whole host of political and economic problems accompanied the two sulfur tax proposals. For example, an emission charge is ideally pegged to the cost to society of the damage caused by a pollutant. Emission charges are set at levels whereby for each polluter the marginal cost of abatement is equal to the marginal cost of damage from uncontrolled emissions. But how is damage to be measured? The proposals described here were pegged to the damage ostensibly created by SO_2, but these damage estimates were only crude, nationally based calculations.[24] Some economists believe that regional charges are to be preferred to a national uniform charge, because the marginal damage caused by each pound of sulfur in a clean region will differ from the marginal damage of each additional pound in a dirty region.

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[22] John F. Burby, "Environment Report/White House Plans Push for Sulfur Tax Despite Strong Industry Opposition," National Journal 4:1663 (October 28, 1972.)

[23] Id. at 1671.

[24] These estimates were questioned in Edward Selig (ed.) Effluent Charges (Washington: Environmental Law Institute, 1973) pp. 53 et seq.

A single uniform national emission charge might bear an imperfect relationship to the damage functions of both the clean and dirty regions. But on the other hand, regional charges might not account sufficiently for inter-regional movements of pollutants, e.g. damages from acid rains in one region resulting from emission of sulfur oxides in another.

Some have argued that fee levels should be set on the basis of disincentive, rather than economic efficiency criteria. If an emission charge is set at too low a level, it may be cheaper for a polluter to pay the fee than abate his pollution. The fee thus becomes a license to pollute. Some environmentalists contended that the 15 and 10 cent fees of the initial administration proposals were too low. Establishment of an appropriate charge was also complicated by inflationary trends in the economy.

Regional fee proposals suffer from the weakness that exemption of selected regions from fee schedules gives major polluters an incentive to locate in such areas to avoid a tax. This might induce abatement in dirtier regions but might worsen air pollution in clean ones. The relocation problem was identified with the administration proposal, though the administration responded that it could be met through implementation of "new source" controls on new industrial operations.[25] Also, the carving up air quality regions into two or more sulfur tax regions might be a process susceptible to considerable political manipulation.

Demand for low sulfur fuel -- The administration argued that the exemption of clean air regions was necessary to reduce demands for low sulfur fuels. This latter argument seemed to have some merit, for by late 1972 the regulatory system established pursuant to the Clean Air Act was exacerbating the low sulfur fuel supply problem in the same manner a nationwide sulfur tax might.[26] Various states, in developing their implementation plans, were imposing sulfur emission restrictions even where they were not needed to meet primary standards, so the market demand for low sulfur fuel was considerable. As a result, the EPA Administrator in December 1972 requested governors to postpone low sulfur fuel requirements where they were not needed to meet primary standards, a request endorsed by President Nixon in his April 1973 energy message. The request could only be advisory, however, because under the Clean Air Act states were permitted to set air standards tougher than those of the federal government if they so desired.

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[25] The administration stated in its 1972 Environmental Program, supra, note 11 at 5, that the tax would in no way compromise achievement of the national ambient standards.

[26] The discussion here draws from the Council on Environmental Quality's Environmental Quality -- The Fourth Annual Report of the Council on Environmental Quality (1973), at 161-162.

Microeconomic impact -- A close look also has to be taken at the microeconomic impact of the emission charges. Under the Coalition proposal, even if polluters met primary and secondary standards, they would have to continue to pay an emission charge. While this charge might encourage continued research into means for reducing the levels of pollution, large generators of sulfur oxides who had achieved high levels of pollution control might have to continue to pay large sums of money which they could ill afford.

The microeconomic impact of the sulfur tax proposal was of special concern to the copper smelting industry. Under the administration proposal, most of the smelters would not be seriously threatened, because most were located in regions with relatively clean air.[27] Were a flat tax to be imposed on the smelters, however, it could have a considerable regional impact, particularly in Arizona. Arizona has 8 of the nation's 19 copper smelters and 48 per cent of the nation's smelting capacity.[28] Utah and Montana each have 11 per cent of the nation's smelting capacity. Moreover, because the domestic primary copper industry is controlled by only 12 firms, the tax would concentrate a considerable capital cost on a few entrepreneurs. In addition, considerable price competition for copper exists from overseas and from aluminum substitutes. During past periods of high demand, American firms have rationed copper rather than raise prices for fear of losing markets to aluminum. Were emission charges to be passed on to consumers in the form of raised copper prices, increased aluminum substitution might occur. This might have an adverse environmental impact inasmuch as aluminum production is notorious for its consumption of electrical power.

A microeconomic evaluation would also have to be conducted on the impact of the charges on the utility industry. Some contend that this industry is in an enormous capital squeeze now and that an emission charge would be unduly burdensome.[29] Analysis of the charges' impact on the industry would be complicated by the need to incorporate regulatory behavior into such calculations; utilities might not be permitted to pass emission charges on to consumers but would have to absorb their costs.

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[27] Wall Street Journal, February 15, 1972.

[28] The description here of the composition and economics of the copper smelting industry is derived from the Council on Environmental Quality, The Economic Impact of Pollution Control (1972), at 191 *et seq*.

Present Status of SO_2 Abatement -- In 1974, three years after the sulfur tax's initial proposal, it appears that many SO_2 emission limitations will not be met by the mid-1975 compliance date of most state implementation plans. Testimony and data submitted at EPA hearings on SO_2 emission limitation compliance by the utility industry in October-November 1973 revealed the following:

1. Some utilities have applied greater efforts to defending their lack of progress or to attempting to change existing emission requirements than they have to controlling their SO_2 emissions through flue gas desulfurization technology.

2. Although control of the chemistry of flue gas desulfurization systems is critical to reliable operation, few utilities have hired personnel skilled in such chemical operations.

3. Utilities are not aggressively following the work of those companies in the U.S. and Japan that have installed full scale flue gas desulfurization systems. This lack of active monitoring makes utilities' "wait and see" attitude towards abatement technology less defensible.

4. While a number of state public utility commissions allow an automatic pass through of increased costs resulting from switching to a low-sulfur fuel, similar automatic pass throughs are not generally allowed for increased costs resulting from the installation of desulfurization systems. This tends to bias utilities toward fuel switching as a compliance mechanism.

5. Industry investment in R&D has increased four-fold in three years, but still constitutes a low .69 per cent of gross revenues. Also, only a small portion of this R&D invest-

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[29] For further discussion of this point see, "Financial Requirements of the Nation's Energy Industries," Hearing before the Senate Committee on Interior and Insular Affairs, March 6, 1973 (Serial No. 93-5).

ment is for SO_2 control.[30]

Tax on Lead Additives

Administration Proposal -- In 1970 the Nixon Administration proposed the imposition of a tax of $4.25 per pound on the lead additives used to raise gasoline octane levels.[31] The objective of the tax was to increase the demand for lead-free fuels thereby providing an incentive to gasoline manufacturers to enlarge refining capacity for production of such fuels. The administration saw the tax as providing a financial incentive that would assure that lead-free gas would be widely available by July 1974, when automobile manufacturers would introduce 1975 model automobiles utilizing catalytic converter emission control devices. These devices, required for the attainment of automotive emission control standards, would be disabled by lead and thus it was necessary to assure that lead-free gas would be widely available to those purchasing cars equipped with them.

The addition of lead to gasoline provides an inexpensive means of raising octane levels; a leaded gasoline is cheaper than an unleaded gasoline of equivalent octane rating whose octane has been raised by some other means. Companies that had introduced no-lead or low-lead fuels found little demand for them in 1970, for consumers could obtain leaded gas of equivalent or even higher octane rating at a cheaper price. The administration lead tax was a simple device to encourage consumption of lead-free gas and discourage consumption of leaded gas by making unleaded gas more competitive. It was not an effluent charge, in that it did not bear any relationship to the alleged cost of lead pollution to the environment.

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[30] The discussion here draws from the Environmental Protection Agency's "Report of the Hearing Panel -- National Public Hearings on Power Plant Compliance with Sulfur Oxide Air Pollution Regulations" (1974). The report is reprinted in "The National Coal Conversion Act and the National Crude Oil Refinery Development Act," Hearings before the Senate Committee on Interior and Insular Affairs, December 6, 1973 (Serial No. 93-27) pp. 92 et seq. The testimony and data cited here are found at pp. 92, 103, 120.

[31] The description of the proposal found here and the arguments in support of and in opposition to it derive from "Tax Recommendations of the President," Hearings before the House Committee on Ways and Means, 91st Cong., 2nd Sess. (September 1970).

The administration proposal had the subsidiary aim of reducing the overall level of lead in gasoline, because it was feared that ambient lead might be a danger to human health. However, the danger to human health was not well-established, so reducing lead contamination of the atmosphere was only a secondary objective.

An across-the-board tax would have had the greatest impact on the many small refiners who relied on lead additives to a greater extent than major refiners. The administration proposal provided an exemption from the tax for these small refiners on the purchase of their first one million pounds of lead in 1972. This exemption was to be decreased by two hundred thousand pounds per year until it was completely eliminated by 1976.

The administration lead tax was presented to the House Ways and Means Committee along with proposals to increase the federal government's tax revenues, so the lead tax was also seen by some as a revenue raising proposal. It would have raised $1.6 billion in its first year, and thus would have had a considerable impact on industry.

Opposition to the Proposal -- The administration proposal was supported by only one environmental group, was called a "license to pollute" by AFL-CIO lobbyists, and was strongly attacked by representatives of the oil and lead industries. Among the pertinent objections to the tax were the following:

1. Industry was already planning to produce no-lead or low lead gasoline, so no financial incentive was necessary to speed the process.

2. Detroit was planning to introduce 1971 models that could be run on 91 octane gas, instead of the 94 or 100 octane gas used by earlier models. This would increase the demand for 91 octane gas, most of which was low-lead or lead-free.

3. Imposition of the tax on lead would be a disincentive to research on lead traps that could capture lead prior to its entering emission control devices.

4. Decreasing the lead in gasoline might require an increase in aromatics that might pose a danger to human health.

5. The tax represented an excise tax of 450 per cent.

6. The tax was regressive because owners of older cars, which had to use leaded gas or higher octane gas, were

probably concentrated in lower income classes. These persons would have no choice but to buy leaded gas and pay the extra 2-3 cents per gallon that the tax would cost them.

7. The tax would be inflationary because it would require a massive, immediate investment in new refinery construction.

8. The tax would increase demands for crude oil by smaller refiners becasue it would require a shift in refining methods that would produce a lower yield of gasoline. In large, integrated refineries the alteration would not produce waste, for the process change would yield a larger proportion of petrochemicals. But in smaller, unintegrated refineries not equipped for petrochemical production, more crude would be wasted as the byproducts would be burned off rather than converted to petrochemicals.

9. Ambient lead's danger to human health had not as yet been proven.

These and other arguments convinced the Ways and Means Committee not to approve the lead tax proposal. Chairman Wilbur Mills was later to tell the American Petroleum Institute that the tax was the first he had seen proposed that was "intentionally designed to drive an industry out of business."[32]

The lead tax was proposed again by the administration the following year,[33] but a check of the House Ways and Means Committee calendar reveals that the only lead tax bills referred to it were two bills introduced by liberal Democrats which featured a lead tax as part of a larger lead additive control program.

EPA Regulatory Actions -- Under provisions of the Clean Air Act, enacted after the Ways and Means Committee's September 1970 hearings on the lead tax, EPA was given authority to regulate the composition of fuels and fuel additives. EPA has since ordered oil companies to make lead-free fuel available by July 1, 1974. EPA also ordered a gradual reduction by 1979 of the overall lead content of gasoline, requiring a cumulative reduction of 60-65 per cent.[34] Small refiners do not have to begin such reductions until January 1977. The rules were challenged in lawsuits filed by several major oil companies, but were upheld as valid in all but one respect by the D. C. Circuit of the U.S. Court of Appeals.[35] While the oil companies have argued that the rules are too strict, environmentalists have contended that the EPA regulations do not sufficiently control what they believe to be a serious environmental pollutant.

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[32] Quoted in "Lead Tax: The First Try Fails," National Journal, 4:1647 (October 21, 1972).

[33] Council on Environmental Quality, The President's 1971 Environmental Program, at 30.

Restriction of lead in gasoline is currently the only effort EPA is making to control ambient lead levels. The agency feels that the scientific data concerning threats to human health is not sufficiently conclusive to merit establishment of a national ambient standard for lead similar to those established for sulfur dioxide, carbon monoxide, nitrogen oxides, and particulates.[36]

Parking Surcharges

EPA Action -- Under provisions of the Clean Air Act, section 110(a)(2)(B), state implementation plans for achievement of national air quality standards are to include transportation control plans. These plans are to be approved by EPA, and the agency is given authority to promulgate its own transportation control plans should state plans be found inadequate [section 110(c)(2)]. In late 1973, under court order, EPA approved or proposed transportation control plans for 30 major urban areas. The provisions of the plans for Texas, Massachusetts, Maryland, Virginia and the District of Columbia, in which EPA approved or proposed the levying of a surcharge on downtown and suburban parking, proved to be among the most controversial of EPA actions. [See Appendices O and P for the texts of two EPA-proposed surcharge regulations.]

The conflict over EPA's proposed parking surcharges demonstrates the potential conflict that is likely to arise any time an economic disincentive is proposed. The parking surcharges would have required a dramatic change in behavior, or else would have imposed a highly visible economic cost on non-responding individuals. For these reasons, they were politically unpopular and attacked by many elected officials.

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[34] 38 Fed. Reg. 33735 (December 1973).

[35] Amoco Oil Company v. Environmental Protection Agency (D.C. Cir. May 1, 1974), 4 ELR 20397.

[36] This scientific controversy over lead levels was briefly described by EPA Deputy Administrator John R. Quarles at a November 28, 1973 news conference at which the lead phase-out regulations were released.

Parking surcharges were viewed by EPA as a powerful disincentive to individual car use in urban areas.[37] Most commuter automobiles are occupied solely by their drivers during urban rush hours and the parking surcharge was seen as a device for encouraging more commuters to carpool or to switch to mass transit. A powerful incentive was in order since voluntary alteration of behavior did not seem a viable alternative. This was demonstrated in Washington D.C. in 1973 where during pollution emergencies in which stagnant air caused a dramatic, health-threatening increase in ambient levels of air pollutants, government pleas made to commuters to carpool had no impact. The power of a non-exhortatory incentive was demonstrated in January and February 1974, when long waits in service station lines that imposed enormous time costs on automobile operators produced a dramatic upswing in mass transit usage and carpooling behavior.

EPA was initially uncertain about the legal feasibility of utilizing parking surcharges.[38] While it knew that agencies can charge fees

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[37] The parking surcharges and their underlying rationale are discussed by EPA at 38 Fed. Reg. 30629 (November 6, 1973)

[38] For example, in its proposed regulations for New Jersey, which did not include parking surcharge provisions, EPA stated:

> EPA doubts whether it has authority in all cases where it must promulgate portions of an implementation plan to require the state concerned to enforce that promulgation. This is so even though one Circuit Court of Appeals has indicated that such a power does indeed exist: Natural Resources Defense Council v. EPA, No. 72-1219 (1st Cir. May 2, 1973).
>
> Instead, it is EPA's position that it may require states or cities to enforce regulations that are related to their position as owners of roads. As owners of roads, states and cities may be held directly responsible for the pollution caused by those roads, and by the traffic which the roads make possible, and may be required to take such steps as are necessary to ensure that the roads and the activities carried out on them cease to cause violations of air quality standards. Regulations have accordingly been drafted to impose enforcement responsibility on the

to cover the costs of regulation, EPA could not at first find legal support for the levying of fees to control behavior. The only

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states or cities only where the activity being regulated is in the judgement of EPA closely enough related to the government's position as owner of the roads to justify the imposition of responsibility under this theory. 38 Fed. Reg. 17784 (July 3, 1973).

In the case cited by EPA, the judge ruled that EPA had the authority to augment state plans with federal regulations enforceable by the states:

> The Administrator asserts that he is powerless to remedy deficiencies in state laws: Even if the Administrator disapproved the enforcement authority of Rhode Island, there would be no substantive corrective action which he could take to remedy the deficiency. All that he could do would be to publish a disapproval notice in the Federal Register. Admittedly, if a State fails to submit a satisfactory implementation plan, the Administrator is directed to promulgate regulations setting forth a plan for that State. Section 110(c), 42 U.S.C. sec. 1875c-5(c). It is doubtful that Congress ever intended this provision to be used by the Administrator to revise the basic statutory authority of state agencies.
>
> We do not accept these protestations of helplessness. Of course, the Administrator cannot repeal the state laws. He is specifically empowered, however, to disapprove not only a state implementation plan, but "any portion thereof" (§1857c-5(a)(2) and §1857c-5(c); and he "shall ... promptly prepare and publish proposed regulations setting forth an implementation plan, or portion thereof, for a State if ... (2) the plan, or portion thereof, submitted for such State is determined by the Administrator not to be in accordance with the requirements of this section, ..." §1857c-5(c).
>
> We hold that these statutory provisions not only empower, but also require, the Administrator to disapprove state statutes and regulations, or portions thereof, which are not in accordance with the requirements of the Clean Air Amendments. Congress plainly intended the federal statute and regulations promulgated thereunder to take precedence over state laws and regulations. By enabling the Administrator to insert his own regulations in a state plan, it

relevant authorities it could find were decisions upholding the Bureau of Land Management's levying of grazing fees under its broad authority to manage the public lands with concern for the public welfare.

Because EPA was uncertain of its authority to require and approve surcharges in state transportation control plans it initially deferred their adoption. It preferred to rely on other regulatory means which were more readily defensible, on the grounds that if too much reliance were placed on parking surcharges which were then judicially overruled, compliance timetables would be upset.[39]

EPA later took a more positive view of the legality of parking surcharges as a means of controlling private vehicle use in light of a long line of judicial decisions upholding the right of municipalities to use parking meters (and their required fees) to regulate traffic. The general legal reasoning was essentially the following:[40]

Municipalities may exercise their police powers by establishing regulations to promote public health, safety, welfare and morals. The police power supports outright prohibition of an activity, so, a fortiori, the police power authorizes licensing as one means of regulation. Fees may be imposed to cover the cost of regulation and these must bear a reasonable relationship to the cost of administra-

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provided him with the needed authority to substitute appropriate provisions for inappropriate ones. Thereafter, as legal components of the state plan, the Administrator's regulations may be both federally and locally enforced; violations thereof are violations of a state plan. §1875c-8(a)(1); see §§1857c-7(d)(1), 1957c-9(b); 3 ELR 20374, 20379.

Additional insight into EPA's views was provided by John Bonine, Office of Enforcement and General Counsel, in a June 6, 1974 telephone interview.

[39] In instances where EPA approved surcharges, it approved alternative measures as well which would be implemented in the event parking surcharges failed to survive judicial tests.

[40] The discussion that follows of the regulatory power and parking meter cases is derived from the following sources: memoranda and court decisions furnished by the Natural Resources Defense Council, Inc., and S. Lyman, "The Constitutionality of Effluent Charges," Technical Report #OWRRA-022-Wis., University of Wisconsin Water Resources Center (May 1969).

tion.[41] In some cases, however, where the regulated activity has the potential of becoming dangerous or a nuisance, the license fees may exceed the cost engendered and may even be high enough to discourage the activity.[42]

These general principles were applied specifically to parking meter statutes in several cases. In *State v. Douglas*[43] the court held that Vermont can regulate the use of streets and highways by restricting parking. This power may be delegated to municipalities. Municipalities can charge parking meter fees, and though revenue from these may exceed regulatory costs, this imbalance does not invalidate the practice. A similar conclusion was reached in *City of Buffalo v. Stevenson*[44]

A Florida court recognized the regulatory function of parking meters noting that they "regulate traffic and keep such traffic as liquid as is reasonably possible."[45] A similar conclusion was reached in New Hampshire:

> An act designed to regulate the use of highways by enabling cities and towns to install parking meters would not be invalid because of the imposition of a fee in excess of the cost of meters and their operation, since one object of parking regulations may be to reduce the number of cars seeking parking accommodations at a particular time and place and a fee may be fixed at a point where some parking will be discouraged without violating the limitation of reasonableness...[46]

By extension, EPA concluded, parking surcharges could be used by municipalities to regulate and discourage parking and thus were a promising element of transportation control plan strategy. Earmarking of proceeds for transportation-related expenditures (i.e.

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[41] *See generally* 33 Am. Jur., "*Licenses*," §19, at 340; 16 C.J.S., *Const. Law*, §174, at 890-891; *Johnson v. County of Goochland*, 1206 Va. 235, 142 S.E.2d 501.

[42] *See U.S. v. Sanchez*, 340 U.S. #42, 71 S.Ct. 108, 95 L. Ed. 47; §26.31 Mc Quillan, *Mun. Corp*; 4 T.N. Cooley, *Taxation*, §1809 at 3555 (4th ed., 1924).

[43] 94 A.2d 403 (1958).

[44] 207 N.Y. 258, 263, 100 N.E. 797, 800.

[45] *State ex rel. Harkow v. McCarthy*, 126 Fla. 433, 171 So. 314, 316 (1936).

[46] Opinion of the Justices of the Supreme Court of N.H., 51 A.2d 836 (1947).

mass transit) would be considered part of a comprehensive regulatory scheme in which individual behavior of a particular kind was discouraged while the receipts from the sanctions imposed on that behavior would be used to encourage an alternative mode of behavior.

Congressional Response -- Those opposing the surcharges questioned EPA's authority to impose them, regarded them as regressive, and feared their deleterious impact on downtown businesses. Among the opponents in the District of Columbia was Congressman Wayne L. Hays, who said he would call the Capitol police to eject any official trying to collect a surcharge from congressmen and their employees.[47]

The EPA proposals were promulgated in the midst of the so-called "energy crisis." About this time, Congress was considering bills which would give the federal government powers to cope with the energy emergency. The House Committee on Interstate and Foreign Commerce, which had jurisdiction over the Clean Air Act, reported an Energy Emergency Act whose provisions weakened the Clean Air Act's regulatory requirements. One provision forbade EPA from imposing parking surcharges without congressional consent.[48] Further, it directed the EPA Administator to submit a study to Congress within six months on the necessity and desirability of such fees to achieve air quality standards.

The prohibition was retained by the conference committee considering the conflicting House and Senate versions of the energy emergency legislation. Sitting on the conference committee were three members of the Subcommittee on Air and Water Pollution of the Senate Committee on Public Works, in which the transportation control provisions of the Clean Air Act had originated. These three members were part of a conference subcommittee that gave special consideration to all the language in the Energy Emergency Act pertaining to the Clean Air Act.

The Energy Emergency Act was never passed by Congress, dying in a Senate dispute over inclusion of provisions governing oil companies' "windfall" profits. EPA nevertheless responded to the congressional actions described above by withdrawing its surcharge regulations. In doing so, EPA Administrator Russell Train took note of the conference committee action. Train added that EPA could still approve any surcharge submitted by a state, though adoption of the surcharge would not be made a condition of EPA approval of a state plan. He stated that EPA would make the study called for by the draft Energy Emergency Act, on the necessity for and desirability of parking surcharges.

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[47] Quoted in the Washington Post, May 14, 1974.

[48] The following description of congressional and EPA action is drawn from EPA's announcement of withdrawal of its proposed parking surcharges, 39 Fed. Reg. 1848 (January 16, 1974). The House bill was reported December 10, 1973.

The Congress weighed revisions to the Clean Air Act in the course of its deliberations in Spring 1974 over H.R. 14368, the Energy Supply and Environmental Coordination Act. Section 3 of the bill contained the surcharge prohibition and was approved by the House. When H.R. 14368 was passed by the Senate, this provision was deleted at the request of Senator Muskie. It was, however, restored in conference, passed by both houses, and signed into law on June 22, 1974 as Public Law No. 93-319.

ADMINISTRATIVE FEASIBILITY OF DISINCENTIVES UNDER FEDERAL ENVIRONMENTAL LAWS

Feasibility of Applying Disincentives to Water Pollution

In section IV we concluded that although the Administrator of the Environmental Protection Agency is not granted authority in the Federal Water Pollution Control Act Amendments of 1972 to impose effluent charges or other disincentives, the states are not precluded from doing so.

Having reached this conclusion, it is appropriate now to inquire whether it is at all feasible or desirable to incorporate disincentives into the existing framework of water pollution control regulations established pursuant to the FWPCA Amendments. A prerequisite of such an inquiry is an analysis of the adequacy of the administration of the existing system, particularly the portions of it pertaining to standards, permits and regional planning.

In a January 1974 speech, EPA Deputy Administrator John Quarles discussed some of the administrative difficulties confronting EPA in administering the FWPCA. With respect to approval of state National Pollutant Discharge Elimination System (NPDES) programs, he noted that although very real progress had been made at the state level, the primary responsibility for operating the permit program had remained with EPA far longer than anyone would have expected one year ago. June 1974 EPA figures prepared for congressional oversight hearings indicate that through FY74, only 15 state permit programs had been approved. Approval of an additional 15 programs was expected by the end of FY75. Thus, only 60 per cent of the states would be administering their own permit programs just two years prior to the July 1, 1977 deadline for existing industrial sources to have implemented "best practicable control technology currently available" [section 301(b)(1)(A)].

As for the effluent guidelines for various categories of industrial dischargers, EPA has fallen behind in their issuance. A total of 121 separate standards are involved, for some 30 different industrial categories. EPA has submitted to court-approved consent order to have the guidelines for the 1977 standards, 1983 standards, new source performance standards and pretreatment standards prepared by November 1974. EPA expects most of these to be challenged in court once they are promulgated, and as of August 15, 1974, over 100 challenges had been filed.

EPA has also had considerable difficulty in developing "a sound basis for regulating toxic pollutants" [section 307(a)]. In Quarles' words:

> We have found it virtually impossible to devise intelligent standards which specify an appropriate degree of control over toxic pollutants irrespective of the sources of those pollutants and factors affecting the feasibility and timing of their abatement.

Furthermore, issuance of specific permits has predated in many instances development of both industry-specific effluent guidelines and comprehensive river basin plans. Also, development of areawide waste treatment management plans pursuant to section 208 of the act is just now getting off the ground, nearly two years after the law's passage.

When Congress enacted the FWPCA Amendments of 1972, it was upset at the lack of pollution control progress under the existing FWPCA. As a result, it enacted a law imposing very short deadlines for the promulgation of very complex regulations. At this time, it is unclear whether the existing, complex regulatory system is going to succeed or whether the entire structure is going to founder under a deluge of litigation, missed deadlines, and unsatisfied expectations. While EPA has been criticized for its administration of the FWPCA program, if the entire structure of regulation fails, Congress must bear the burden of having established a basic regulatory framework which expected too much, too soon. Be that as it may, we will nevertheless explore the feasibility and desirability of adding pollution disincentives to the existing regulatory structure.

Legal Authority for Monitoring — Section 308 of the FWPCA Amendments provides authority for recordkeeping, monitoring and inspection requirements. Any monitoring and record-keeping requirements of an economic disincentive system could be ordered pursuant to the broad provisions of this section. The technological feasibility of monitoring particular pollutants and the cost of such monitoring would have to be taken into consideration in determining whether particular pollutants should be subject to economic disincentives.

Economic Analyses — The new source standards required by section 306(b)(1)(A), and determination of the "best practicable control technology currently available" and "best available technology economically achievable" (these respectively being the 1977 and 1983 abatement goals for existing industrial sources) require the gathering of economic data by EPA. The current, somewhat rushed promulgation of guidelines pursuant to court order may produce a series of guidelines that are highly susceptible to successful court challenge because they are based on an unduly limited economic data base. However, to the extent EPA has the time and means to produce in-depth economic studies, it may have developed a data base which will provide the information it and the states need to formulate a series of sensible pollution disincentives that would encourage timely compliance with abatement schedules.

Toxic Substances — Section 307 of the FWPCA requires the EPA Administrator to establish effluent standards for toxic substances. In establishing these standards the Administrator is to take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms. The standards are not based on economic considerations or upon availability of treatment technology.

Pursuant to the mandate of section 307, EPA proposed such standards on December 27, 1973. These are to be promulgated shortly in final form unless their modification is required as shown by evidence presented at public hearings which were to have been held within 30 days of issuance of the proposed standards. Standards are to become effective no later than one year after their final issuance and compliance is to be immediate. Standards were established for nine substances. They are keyed to type of receiving water (stream, lake, coastal water or estuary) and stream flow. In many instances daily quotas were established; in some, zero discharge was required while in others the maximum allowable discharge was quite low. For example, the maximum permitted daily discharge of aldrin-dieldrin in a stream is 0.162 pounds per day regardless of receiving water flow [proposed 40 C.F.R. section 129.02c(b)(3)(i)]. Though the toxic substances standards are not based upon economic considerations, their impact upon the economy was examined and did not appear to be too great.

It has been asserted that the technology is available for continuous monitoring of some of the toxic pollutants for which standards have been established by EPA, though this technology is expensive, costing \$10,000-\$15,000.[49] If the number of dischargers is relatively small, imposing a pollution charge on existing discharges subject to abatement might not be overly difficult from an administrative point of view. However, as in all other cases where pollution charges might be proposed, those subject to such charges will argue that a pollution charge on top of expenditures for pollution abatement constitutes a double burden. Again, the economics of the industry affected would have to be closely analyzed to determine just how onerous a burden such a pollution charge might be.

Areawide Waste Treatment Management -- Operating agencies responsible for management of areawide waste treatment management (section 208) plans are supposed to have adequate revenue-raising authority, including power to assess waste treatment charges. EPA has only recently issued regulations for approval of section 208 planning agencies. These agencies will produce regional plans which in turn will be managed by designated management agencies. Regional plans are supposed to include land use programs designed to regulate the location, modification and construction of any facilities within an area which may result in any effluent discharges within that area. Presumably disincentives could be employed to discourage particular modes of development. See, for example, the description of the Vermont land gains tax in Section V.

The Role of Marketable Permit Systems -- In a marketable permit system, a central authority issues or sells permits specifying rates of allowable discharges. The total discharges permitted can be made equivalent to the assimilative capacity of the waterway or to some lower level chosen by the political process. In such a system, dischargers are, within certain limitations, permitted to exchange certificates with other dischargers, thereby allowing allocation of the waterway's assimilative capacity through the marketplace.

Marketable permit systems might be employed in the regulation of water quality pursuant to sections 302 and 303 of the act. In accordance with these sections, water bodies can be divided into effluent limited and water quality limited segments. The former are those in which compliance with existing effluent limitations will permit attainment of established water quality standards, while water quality limited segments are those for which higher levels of effluent abatement than those necessary under section 301 of the law will be required, for otherwise water quality standards will not be met. For the many reasons cited at the beginning of this subsection, there is little need now even to consider burdening the existing regulatory system with a marketable permits component.

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[49] See Anderson, et al, supra note 6.

Feasibility of Applying Disincentives to Air Pollution

State Implementation Plans -- Fees could be used as a supplementary means of encouraging compliance with the deadlines established for state implementation plans. Of the substances for which ambient air quality standards have been established, sulfur emissions would probably be the likeliest candidates for emission charges, for the number of stationary sulfur emission sources is relatively small as compared to the number of sources of particulate matter and carbon monoxide and the damages from sulfur oxides are generally greater. Proposed sulfur emission tax proposals are discussed in the preceeding subsection of this report.

New Source Controls -- There may not be an immediate need for incentive charges to be used as supplements to the new source requirements of section 111 of the Clean Air Act. New sources would be designed to meet strict emission standards established by the EPA Administrator after a careful deliberative process considering both economic and environmental factors. State preconstruction review could assure adherence to emission limitations by new source design and refusal to permit construction of poorly designed sources might be an adequate enforcement measure. Operations producing emissions in excess of standards could be punished through the courts.

Pollution charges might be desirable as supplements to new source controls so as to prevent significant air quality deterioration while permitting industrial development in regions with relatively clean air. Charges coupled with new source control standards would enable a larger number of industrial facilities to locate in an area, without significant air quality deterioration resulting, than otherwise would be permitted. This is especially true if new sources at present are merely required to provide a percentage reduction in emissions with no quota or ceiling placed on the absolute quantity of permitted emissions. On the other hand, if the Clean Air Act permits no significant air quality deterioration to occur, then a ceiling on emissions would have to be imposed and there would be no need for pollution charges.

Hazardous Emissions -- To date, hazardous emission standards have been established only for asbestos, beryllium, beryllium rocket motor firing and mercury. For asbestos, the standards do not take a readily quantifiable form. Either no visible emissions are permitted (from asbestos mills) or behavior which might contribute asbestos to the air is prohibited or subject to government approval.[50] There would appear to be little room for pollution charges in such a stringent regulatory scheme.

The emission standard for beryllium is 10 grams per 24 hour period, though ambient air levels below .01 micrograms per cubic meter averaged over 30 days in the vicinity of a stationary beryllium source will also satisfy the regulatory requirements.[51] Inasmuch as the emission standard is quantified, emission charges could be levied on discharges in excess of standards to encourage rapid compliance on the part of sources currently over-emitting and to discourage applicants for the two-year variances permissable under law. Fees could also be levied on discharges below standards so as to encourage zero discharge, but inasmuch as the current standard is so low, the desirability of such charges is questionable. Their feasibility at such low levels would also be contingent upon development of a highly sensitive monitoring technology which might be inordinately expensive.

For mercury, the emission standard is 2,300 grams (5.06 pounds) per 24 hour period,[52] significantly higher in absolute terms than the beryllium standard. Pollution charges might be desirable as a supplementary enforcement technique for the same reasons they might be applied to beryllium emissions, i.e., to discourage applications for variances and to encourage discharges below the standards.

Feasibility of Applying Disincentives to Use of Pesticides

Section 3(c) of the amended Federal Insecticide, Fungicide, and Rodenticide Act requires each applicant for registration of a pesticide to provide the Administrator of the Environmental Protection Agency information about the pesticide, including its complete formula and, if requested by the Administrator, a full description of tests made and the results. The Administrator utilizes this information in determining whether to register the pesticide and, if so, whether to classify it for general or restricted use.

The criteria employed in evaluating whether a pesticide may be classified for general use are 1) degree of hazard to humans; 2) frequency of contact with humans; 3) degree of persistence;

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[50] 40 C.F.R. Part 61.22.

[51] 40 C.F.R. Part 61.32.

[52] 40 C.F.R. Part 61.52.

4) method of application; 5) degree of biomagnification or bioconcentration; and 6) kind of pest which it is supposed to control. Levels of severity could be devised for each of these criteria and values assigned each level. Above a certain sum of points a pesticide would be classified for restricted use. This same system could serve as the basis for establishing how much the disincentive charge per unit of the restricted use pesticide would be.

The disincentive charges could be imposed as fees for registering the restricted-use pesticides. The annual charge would be based on the amount of charge per unit multiplied by the number of units manufactured that year. The Administrator could require that the pesticide's label give notice to purchasers of the portion of the product's price attributable to the disincentive charge. He could also require that the amount of the charge be reflected in the price.

The proceeds generated by the disincentive charges could fund 1) the additional supervision required for restricted-use pesticides; 2) research into the environmental and social effects of their use; 3) the indemnity payments called for under section 15 of the act to persons suffering losses as a result of the suspension or cancellation of the registration of a pesticide, or any combination of these.

Disincentive charges for a pesticide being used under a section 5 experimental use permit could be based on a rating, according to the six criteria above, of the chemicals and combinations of chemicals found in registered pesticides, and/or the results of studies which may be required under section 5(d) for those chemicals not contained in an already-registered pesticide. The charges would be imposed as conditions of the permits, payable at the time of issuance.

Feasibility of Applying Disincentives to Ocean Dumping

Section 102(a) of the Marine Protection, Research, and Sanctuaries Act of 1972 requires that the Administrator of the Environmental Protection Agency "establish and apply criteria for reviewing and evaluating" applications for ocean dumping permits, and sets forth nine factors to be considered in establishing or revising these criteria.[53] These criteria were issued in final form on October

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[53] The factors are, paraphrased: need for the dumping, effect on human health and welfare, effect on fisheries resources; effect on marine ecosystems; the persistence and permanence of the effects

15, 1973.[54] They distinguish between highly toxic, moderately toxic and non-toxic substances, and provide for prohibition (except for trace contaminants), strict regulation and permissive regulation respectively. While these criteria could be improved,[55] and although there is a great deal unknown about the effects of ocean dumping, they could serve as the basis for establishing disincentive charge rates per unit of matter discharged, which rates could be applied either as regulations under section 108 or as permit conditions under section 104(a)(6).

Feasibility of Applying Disincentives to Solid Wastes

As the discussion in section IV demonstrates, state initiatives to adopt disincentives applicable to some kinds of solid wastes, notably bottles, have proven feasible. The March 1974 report of the Environmental Protection Agency to the Congress under section 205 of the Solid Waste Management Act,[56] which is summarized in the following discussion, gives attention to product charges as specific disincentives to be applied to undesirable solid waste matter. In discussing product controls, the report assesses the alternative bases for charges: weight of the product (disposability), product lifetime (curtail new manufacturing now spurred by planned obsolescence), specific material usages. However, "[t]hese are fairly broad-based measures applicable to wide classes of products. Therefore, determining the appropriate level of the charge and predicting effectiveness and impacts are complex and difficult tasks." Special emphasis is placed upon four categories of waste: automobiles, packaging, beverage containers, and tires.

For autos, the major problem is the backlog of uncontrolled abandonments, currently estimated at over 3.5 million and projected at nearly 5 million by 1980. A certification system similar to

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of the dumping; effect of dumping particular volumes or concentrations of materials; appropriate locations and methods of disposal, including land-based alternatives; effect on alternate use of the oceans; location of the dumping sites.

[54] 38 Fed. Reg. 28609; 40 C.F.R. Part 127.

[55] See "Petition of the National Wildlife Federation to the Honorable Russell E. Train, Administrator, Proposing Amendment and Requesting Revision of Environemtal Protection Agency Criteria and Regulations Governing Evaluation and Issuance of Permits for Ocean Dumping of Waste and Other Materials," April 18, 1974.

[56] Second Report to Congress: Resource Recovery and Source Reduction, U.S. Environmental Protection Agency, 1974.

Senator Javits' 1970 proposal[57] is discussed in the EPA report. Other suggestions include municipally-provided free disposal lots, and bounties, or monetary bonuses, to people collecting abandoned cars. While motor vehicle abandonment is illegal in all of the states, lax enforcement is the rule.

In packaging, several control measures are being studied, including: a flat weight tax, such a tax with rebate for content of recycled material, per unit tax on rigid containers, and laws requiring content of recycled material. A weight tax would be somewhat effective in reducing overall solid waste, the report concludes, but a per unit tax would be more so. "Both of these broad-based fiscal measures are likely to discriminate against certain packages and may even result in shifts to materials and packages that are less desirable from an environmental point of view." This is because weight reduction tends to mean comparative advantage for aluminum throwaways, while per unit taxes may result in more volumetric packing.

Three chief strategies have been suggested for curbing the beverage container contributions to litter or solid waste or both: mandatory deposit systems, bans on the use of nonrefillables, and container taxes to generate anti-litter funds. These approaches have been tried in some states.[58] In Congress S. 2026, which would both establish a nationwide deposit system and impose a ban on some subcategory of refillables, is under consideration.

Automotive tires are a particularly troublesome solid waste component because they are difficult to incinerate, have a high volume to weight ratio, and tend to work their way to the surface of a sanitary landfill. They are not biodegradable. Recycling is limited by the uses to which used rubber can be put. The EPA report is silent as to tire disposal charges.

Of particular note is the report's Appendix C, "An Analysis of the Product Charge." That brief section is premised on the belief that the design and disposability of products and their packages are not dictated by the market. To insure beneficial social input, EPA proposed the internalization of the cost of collection and disposal in the product price by means of a charge. Ideally, such charges should exactly reflect costs of disposal, but this is impossible, given the wide disparity in costs nationwide, and the fact that insufficient waste management in many places would lead to understating full disposal costs. Nor could individual product inputs accurately be estimated. Approximations would therefore have to be used. As illustrated above, flat-weight charges are inequitable, and though compacted volume is a better measure of disposal cost, it would necessitate crush-tests on almost every item and package disposed. EPA's report speaks in terms of the "penny-a-pound" tax, and the granting of exemptions to non-disposed consumables. If rebates for recycling were adopted, one cent per pound would be a considerable spur. Because of conversion lag time, charges could be expected to influence consumer purchasing choices relatively sooner than they would alter manufacturers' design and packaging decisions. In the consumer product areas with the highest packaging weight to value ratios, i.e., soft drink, canned food, beer and prepared beverages, such a product charge would amount to less than 3 per cent of retail product cost, and those categories are themselves only involved with 8 per cent of all consumer purchases. "Thus, the general impact on the consumer and, hence, the expected source reduction effect at this level is expected to be small." Not so for manufacturers, whose charges, expressed as a percentage of packaging costs, would more nearly approach 8 per cent.

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[57] See, supra, note 101, section IV.

[58] For discussions of the Oregon and Vermont bottle laws, see section IV.

Weight based charges might well have negative environmental impact, however, as they would tend to, "induce some shifts toward lighter weight materials. In particular, plastic and aluminum might be substituted for glass and steel, which could increase the consumption of resources in total and increase the burden on the environment." As a percentage of family income, such a charge would clearly be regressive.

Since a tax of a penny per pound could be expected to generate annual revenues upward of $1.6 billion, the report offers alternative methods of disbursement. Monies could be returned to states and municipalities to finance solid waste facilities, or it could be awarded for any purpose conditioned upon the recipient first meeting certain federal environmental objectives. Straight revenue-sharing would be a third possibility. While the ultimate disposition of these revenues in no way affects the disincentive functioning of charges, the alternatives do pose important political choices.

In concluding Appendix C, the EPA report comments that "studies on the product charge will continue as will analysis of other product control mechanisms for internalizing solid waste management costs and reducing the generation of product waste."

Feasibility of Applying Disincentives to Noise Emissions

There is a commonly accepted indicator of sound levels, the decibel A-scale (dB(A)). Many municipalities presently have ordinances prohibiting noises in excess of specified decibel readings. This approach could serve as the point of departure for federal or state or local regulation of noise by imposing disincentives on noise emissions. Sources of noise could be required to pay annual charges in proportion to the decibels they emit under standardized test conditions or in actual use. Producers of products could likewise be taxed per unit of production based on the decibel rating of the product under normal operating conditions and standardized test conditions. In certain areas the decibel charge rates could be varied according to time of day, number of people affected, duration of the sound level, or context in which the noise is made.[59]

Disincentives are already in force to discourage airport noise in Los Angeles, California. There, noisier aircraft must pay higher landing fees to use the airport.[60] Passengers departing from Roissy airport near Paris must pay charges which defray the costs of soundproofing homes near the airport or of relocating the people who want to leave its vicinity.[61]

CONCLUSION

As the preceding section indicates there are many difficulties in translating suggested policies based on economic theory into legislative proposals which are either generally comprehensible or politically acceptable or both. One of the principal difficulties is the widespread uncertainty about the actual impact of particular proposals on the behavior and economics of those who would be affected. This uncertainty is compounded by the widely divergent claims made about proposals for disincentives by their proponents and opponents. A disincentive is neither a panacea nor a cause for panic. Rather, it is a promising new mechanism for governing our behavior for the benefit of all. The actual effects of existing disincentives should be carefully monitored and reported and suggestions for applying the disincentive idea in other areas -- such as those in the last part of this section -- should be further analyzed.

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[59] For a discussion applying economic theory to achieve abatement of noise from airports, see William F. Baxter, "Legal Aspects of Airport Noise," 15 Journal of Law and Economics 1 (1972).

[60] Christian Science Monitor, January 27, 1973, "Noise, noise, noise -- cities start putting lid on," page 5.

[61] Montpelier-Barre Times Argus, April 26, 1973, " 'Noise Tax' Will Be Imposed On Air Passengers Passing Through Tiny French Village of Roissy". See also, "Actions and Strategies for Noise Abatement with Emphasis on Economic Incentives," The OECD Observer, No. 71 August 1974, at page 14.

Appendix A

PROPOSED

POLLUTION CHARGE RATES

Pursuant to 10 V.S.A. §912a(e)

Submitted at the request of and to
the Vermont Water Resources Board

By: Commissioner of Water Resources
Martin L. Johnson and Assistant
Attorney General John D. Hansen

January 17, 1972

§1 - Introduction: 10 V.S.A. §912a(e) authorizes and requires the Vermont Water Resources Board to fix and establish reasonable and just pollution charge rates for computing the amounts to be paid by temporary pollution permit holders as a condition of the permit pursuant to 10 V.S.A. §912a(d). The purpose of such charges is specified in the statute as follows:

> "§912a(e)(1) Pollution charges: By January 1, 1971 the board shall fix and establish reasonable and just pollution charge rates for computing the amounts to be paid by temporary pollution permit holders pursuant to subsection (d) of this section. The board is authorized to revise such charge rates from time to time thereafter.
> (1) Purpose: It is expressly recognized that the authorized discharge of certain wastes which will reduce the quality of receiving waters below the established classification represents an expropriation of a valuable public natural resource for private or limited use and that such discharges are permitted under this subchapter for economic reasons in the public interest of providing time during which the degrading effects of such discharges can be abated. The imposition of pollution charges shall have the principal purpose of providing the economic incentive for temporary pollution permit holders to reduce the volume and degrading quality of their discharges during the limited period when such discharges are authorized, thereby raising the quality of the waters in the state. Such charges shall be for the further purpose of protecting the health, welfare and safety of the general public, protecting, preserving, and benefiting navigation upon the waters of the state and protecting the general public interest in such waters including recreational and aesthetic interests. The charges are not imposed for revenue purposes and any income received by the state under this section shall be used solely for purposes of water quality management and pollution control."

The pollution charge rates and procedures for reduction in charges herein fixed and established are particularly designed and intended to provide an economic incentive for temporary pollution permit holders to reduce the volume and degrading quality of their discharges during the limited period when such discharges are authorized and thereby raise the quality of the waters in the state. These charges are for the further purpose of protecting the health, welfare and safety of the general public, protecting, preserving and benefiting navigation upon the waters of the state and protecting the general public interest in such waters including recreational and aesthetic interest.

The Vermont Water Pollution Control Act (10 V.S.A. Chapter 33, Subchapter 1) recognizes that the discharge of certain degrading wastes which will reduce the quality of receiving waters below their established classification represents an expropriation of a valuable public natural resource for private or limited use, but that such discharges are to be permitted for economic reasons in the public interest of providing time during which the degrading effects of such discharges can be abated. It authorizes the issuance of temporary pollution permits for such discharges but specifies that such permits shall be valid only for that period of time necessary to place into operation an approved pollution abatement facility or alternate waste disposal system by means of which the degrading effects of such discharges can be abated. It provides that such permits shall have a specific expiration date and does not authorize their renewal. The statute relies upon the limited duration of such permits and the severe penalties for discharging after a permit has expired to provide any necessary incentive for temporary pollution permit holders to install the permanent facilities or systems to abate their polluting discharges. The pollution charges herein established are not primarily intended as an incentive for the installation of such permanent facilities or systems, but rather, as required by 10 V.S.A. §912a(e), are primarily intended to provide an incentive for interim measures which will reduce the volume and degrading quality of such resource-expropriating waste discharges during the limited period that temporary pollution permits are in existence. Section 912a(e) mandates an economic incentive which will bring about improvement in water quality during the period in which degrading discharges are authorized by temporary pollution permits and the charge rates herein fixed and established are designed to comply with this legislative directive.

The charge rates herein set are for the further purpose of establishing equity between temporary pollution permit holders and other legitimate users of Vermont waters for waste disposal purposes. It is recognized that persons, municipalities, industries and commercial operations who are discharging wastes which do not reduce the quality of receiving waters below established classifications pursuant to discharge permits bear substantial capital, operational and maintenance costs for the waste treatment facilities and systems which enabled them to obtain discharge permits. It is inequitable for such persons, municipalities, industries and commercial operations to bear such costs if temporary pollution permit holders are allowed, without charge, to discharge degrading wastes and thereby expropriate this valuable public natural resource for private and limited use by virtue of economic reasons deemed to be in the public interest. In addition to bringing about an improvement in water quality during the period that temporary pollution permits are in existence, the imposition of the pollution charges herein established has the further public benefit of offsetting the economic advantage obtained by the temporary pollution permit holders under the permit system and thereby achieve a reasonable and justifiable equity between discharge permit holders and temporary pollution permit holders.

The guidelines for establishing pollution charges are set forth in 10 V.S.A. §912a(e)(2) as follows:

> "(e)Pollution charges: By January 1, 1971 the board shall fix and establish reasonable and just pollution charge rates for computing the amounts to be paid by temporary pollution permit holders pursuant to subsection (d) of this section. The board is authorized to revise such charge rates from time to time thereafter. (2) How established: A pollution charge is the price to be paid per unit of waste discharged into waters of the state. The charge may vary among different types or classes of wastes to account for variations in the degrading effects of various wastes. The charges may also vary to account for variations in the water quality standards of different classes and the hydrologic conditions of different receiving waters. In establishing the charges the board shall attempt to approximate in economic terms the damage done to other users of the waters, both private users and the general public, caused by the degrading effect of various types of waste in varying volumes and frequencies of discharge upon water qualities of the different classes of waters. In determining relative degrading effect the board may employ any scientific or technical criteria or parameters such as biochemical oxygen demand and suspended solids and may express the unit charge in terms of such standards of measurement."

The pollution charge rates herein fixed and established comply with these legislative guidelines in that: (1) They establish the price to be paid per unit of waste discharged to the waters of the state - although the per unit price may vary according to the volume of waste discharged and/or the mean annual flow of the receiving waters, the per unit price is determinable by these regulations for each discharge to the waters of the state pursuant to a temporary pollution permit; (2) vary among different types of wastes to account for variations in relative degrading effect of different wastes - under these regulations different charge rates are established for domestic wastes, non-domestic wastes containing biochemical oxygen demand and suspended solids, and heated effluents; (3) vary to account for variations in the hydrologic conditions of different receiving waters; under the "impact approach" followed in these regulations, mean annual flow provides the measure of variations in hydrologic conditions and the charges are inversely related to the amount of mean annual flow of receiving waters; (4) attempt to approximate in economic terms the damage done to other users of the waters, both private users and the general public, caused by the degrading effects of various types of waste in varying volumes and frequencies of discharge upon water quality - these regulations attempt to satisfy this standard by use of the impact approach, i.e. - the greater the relative degrading effect, the greater the charge, and by relating the charge scales to current costs of treating wastes; (5) reflect "relative degrading effect" in terms of technical criteria such as number of persons whose wastes are discharged, biochemical oxygen demand, suspended solids, British thermal units and mean annual flow of receiving waters.

With the exception of heated effluents for which a fixed per unit charge is established by these regulations, the charge rates herein established are impact oriented, that is, a relationship is made between impact or relative degrading effect and the charge rates so that the more deleterious the impact of a particular discharge upon a particular receiving water in relation to other discharges and other receiving waters, the higher the charge. Relative degrading effect is determined by reference to the volume of polluting waste discharged and the mean annual flow of the receiving waters. Figures I-A, I-B, I-C and II of this regulation illustrate these inter-relationships. The relative degrading effect of the discharge of the domestic waste of 10,000 persons is greater than the discharge of the domestic wastes of 1,000 persons on waters having the same mean annual flow. Similarly, the relative degrading effect of the discharge of domestic wastes of 100 persons upon receiving waters having a mean annual flow of 50 cubic feet per second is greater than the discharge of the domestic waste of the same number of persons upon receiving waters having a mean annual flow of 500 cubic feet per second. Where the mean annual flow is relatively high, the addition of more units of waste causes little change in relative degrading effect and the charge curves contained in Figure I-A, I-B, I-C and II have been designed to reflect this fact, yet reflect also that the discharge is polluting under Vermont water quality standards. Conversely, the charge curves rise steeply where the mean annual flow is relatively low to reflect the greater relative degrading effect caused by the addition of more units of waste. The curves are an exponential relationship between dilution and the amount of pollutants discharged and are asymptotic at two limits selected as reasonably representative of maximum and minimum waste treatment costs based upon Vermont experience. These exponential curves reasonably reflect the relative degrading effect of the discharge of various wastes in varying volumes into receiving waters having varying mean annual flows, and the charges determinable therefrom constitute reasonable approximations of the damage caused to other users of the waters, both private users and the general public, by the degrading discharges made pursuant to temporary pollution permits.

The pollution charge rates herein established categorize and apply to three types or classes of wastes: (1) domestic wastes; (2) non-domestic wastes having containing biochemical oxygen demand and/or suspended solids; and (3) heated effluents. All wastes which are or will be allowed to be discharged under temporary pollution permits can be classified and quantified within this scheme of classification and thus pollution charges can be universally applied in accordance with the permit system established by the statute.

The pollution charge rates for domestic wastes are fixed and established in section 3(a),(b) and (c) of this regulation and the charges are computed by reference to Figures I-A, I-B and I-C which respectively correspond thereto. Three optional methods are provided for computing the charges for domestic waste discharges in order to afford a reliable and reasonably accurate means of computation to all dischargers of such waste. Section 3(d) of this regulation fixes and establishes the charge rates for non-domestic wastes containing biochemical oxygen demand and/or suspended solids and the charges are computed by reference to Figure II which correspond thereto. Section 3(e) of this regulation fixes and establishes the charge rate for heated effluents at $0.025 per million British thermal units.

The pollution charges herein established are cumulative. For example, if an industry discharges wastes composed of domestic wastes, non-domestic wastes containing biochemical oxygen demand and/or suspended solids and heated effluents, its charge shall be computed for each such waste constituent for which the temporary pollution permit is issued.

Section 6 of this regulation establishes the standards and procedures under which a temporary pollution permit holder who effects a reduction in the volume and/or degrading quality of his discharge may obtain a reduction in his pollution charge. In most cases the reduction in charge is determined by a recomputation based on the new volume, discharge frequency or effluent characteristic data for the remainder of the charge year. For example, if an industry permanently reduces the total number of pounds of biochemical oxygen demand and suspended solids in its discharge, its charge is recomputed for the allocable portion of the charge year and its annual charge is reduced accordingly. In the case of domestic wastes, additional percentage reductions in charges are established as follows: (1) 33 1/3% for disinfection in a manner approved by the department; (2) 50% for primary treatment including disinfection in a manner approved by the department. The procedures for charge reductions involve application to and investigation by the department, approval or denial by the department, amendment of the temporary pollution permit to impose the more stringent discharge limitations, and reduction of charges.

Procedurally this regulation involves four administrative stages: (1) computation of charges; (2) assessment of charges; (3) reduction of charges to account for reductions in relative degrading effect; and (4) payment of charges. Pollution charges are assessed and paid on an annual basis, the charge year commencing on July 1 and ending on the following June 30. Annually, on or before April 1, charges are computed by the department for the following charge year based upon information contained in temporary pollution permit applications, departmental flow data and any supplemental information furnished by temporary pollution permit holders who are given the opportunity to submit such information annually by March 1 in order that the charges can be computed on the most current, accurate and reliable data available. Annually, on or before April 15, charges are assessed to each temporary pollution permit holder for the following charge year by the department. An appeal to the Vermont Water Resources Board is provided for any temporary pollution permit holder aggrieved by his assessment. The charges assessed shall be the charges due for the charge year unless reduced on appeal or by reduction pursuant to section 6 or unless the temporary pollution permit holder elects to monitor his discharges as provided for in section 5(d) in which case the charges will generally be based upon the data obtained in the approved monitoring program. Payment of annual pollution charges is due on or before August 15 following the close of a charge year.

A 1971 amendment to 10 V.S.A. §912a(e) (See Act No. 93 - 1971 Vermont Acts) specifies that any temporary pollution permit holder who abandons or rescinds or otherwise fails or refuses to carry out his plans upon which the permit has been granted shall thereupon be assessed the charges which otherwise would have been applicable for the year commencing July 1, 1971 which charges together with charges accrued from July 1, 1972 shall be immediately due and payable. Provisions to implement this legislative directive are contained in sections 4(b), 5(e) and 7 of this regulation.

Except as set forth in the immediately preceding paragraph, these regulations and the charges herein fixed and established apply only to temporary pollution permit holders who are or will be discharging on or after July 1, 1972, from which date pollution charges shall begin to accrue as specified in 10 V.S.A. §912a(e), as amended (See Act No. 93 - 1971 Vermont Acts).

§2. Definitions: Whenever used or referred to in this regulation, unless a different meaning clearly appears from the context:

(a) "Dilution in cubic feet per second of mean annual flow per person polluting" means the number obtained by dividing the mean annual flow in cubic feet per second at the point of discharge by the total number of persons whose wastes are discharged at that point. That total number of persons shall be determined by actual count or by multiplying the number of households from which waste is discharged at that point by four. The total number of persons may be adjusted for seasonal and daily fluctuations where such fluctuations are substantiated by the permittee. Small industries and commercial establishments such as laundromats, filling stations and stores may establish their domestic waste load in terms of an equivalent number of people, provided such equivalency is approved by the department. In such cases each person is assumed to contribute a daily domestic waste load of 0.2 pounds of BOD, 0.2 pounds of suspended solids, contained in 100 gallons of water requiring disinfection to destroy an unknown number of bacteria, fungi, worms and other parasites, both pathogenic and non-pathogenic. For the purposes of this regulation any lake, pond or reservoir into which waste is discharged pursuant to a temporary pollution permit shall be deemed to have a "Dilution in cubic feet per second of mean annual flow per person polluting" of 0.01 cubic feet per second.

(b) "Dilution in cubic feet per second of mean annual flow per 1,000 gallons per day" means the number obtained by dividing the mean annual flow in cubic feet per second at the point of discharge by 0.001 times the number of gallons discharged per day. For the purposes of this regulation any lake, pond or reservoir into which waste is discharged pursuant to a temporary pollution permit shall be deemed to have a "Dilution in cubic feet per second of mean annual flow per 1,000 gallons per day" of 0.10 cubic feet per second.

(c) "Biochemical oxygen demand" or "BOD" means the standard measure of the weight of dissolved oxygen consumed by microbial life while assimilating and oxidizing the organic matter present. Analytical Reference: Part 219, Standard Methods for the Examination of Water and Wastewater, 13th Edition (1971).

(d) "British thermal unit" means the quantity of heat required to raise the temperature of one pound of water through one degree Farenheit. The number of British thermal units discharged to a receiving water shall be determined based upon the difference between the discharge temperature and the ambient temperature of the receiving water. The ambient temperature of the receiving water shall be determined upstream of the point of the heated waste discharge or, in a lake, pond or reservoir, outside the area affected by the heated discharge. For the purposes of this regulation one gallon of water shall be deemed to weigh 8.34 pounds.

(e) "Disinfection" or "Disinfected" means the killing of the larger portion (at least 99.9% but not necessarily all) of the harmful and objectionable micro-organisms in a discharge by acceptable means.

(f) "Domestic wastes" means spent water from human activities derived principally from dwellings, business buildings and institutions and includes human body waste, sink waste and wash waste but does not include paint, gasoline, heavy metals, toxic materials, solids, oils, grease and scum.

(g) "Mean annual flow in cubic feet per second means the total annual volume of streamflow, measured at the point of interest in cubic feet, divided by the number of seconds in one year (31,536,000 seconds in a year). Mean annual flow at the point of interest shall be determined from acceptable stream gauging records. In cases where no gauge record exists for the precise point of interest, mean annual flow shall be determined by adjusting nearby stream gauging records according to drainage area ratios. For the purposes of this regulation any lake, pond or reservoir into which waste is discharged pursuant to a temporary pollution permit shall be deemed to have a mean annual flow of 1.0 cubic feet per second.

(h) "Permittee" means a person to whom a temporary pollution permit has been issued by the water resources department pursuant to 10 V.S.A. §912a.

(i) "Primary treatment" means a sedimentation process followed by disinfection reasonably expected to remove from 50% to 60% of the suspended solids and from 25% to 35% of the BOD in wastewater.

(j) "Suspended solids" (Non-Filterable Residue) means those solids which are retained by a standard glass fiber filter and dried to constant weight at 103° Centigrade for one hour. Analytical Reference: Part 224 C, Standard Methods for the Examination of Water and Wastewater, 13th Edition (1971).

§3 - Charges Established: The following pollution charges and rates are established as just and reasonable to fulfill the purposes of 10 V.S.A. §912a(e).

(a) Domestic Wastes - Option #1: The annual pollution charge is the product obtained by multiplying the "Annual Charge Per Person Polluting as determined from Figure I-A of these regulations by the number of persons whose domestic wastes are being or to be discharged pursuant to the temporary pollution permit. If the domestic waste is disinfected in a manner approved by the department, the annual charge shall be reduced by 33 1/3%. If the domestic waste receives primary treatment including disinfection, in a manner approved by the department, the annual charge shall be reduced by 50%. (This option provides a method of computing an annual pollution charge where the number of persons whose wastes are being discharged is relatively constant as in the case of a municipality or a private home. The method is predicated upon the assumption that the average person discharges 100 gallons of domestic waste per day of constant strength. To compute the charge by this method one must know the mean annual flow of the receiving waters and the number of persons whose wastes are being discharged. To illustrate, if a municipality has a population of 1,000 persons whose wastes are being discharged into receiving waters having a mean annual flow of 500 cubic feet per second, one would compute the annual pollution charge by: (1) dividing the mean annual flow by the number of persons discharging to obtain the "Dilution in cubic feet per second of mean annual flow per person polluting" (500 ÷ 1000 = 0.5 c.f.s.); (2) referring to Figure I-A to determine the "Annual charge per person polluting" ($23.40); (3) multiplying the "Annual charge per person polluting" by the number of persons discharging to obtain the annual pollution charge ($23.40 x 1,000 = $23,400.00)).

(b) Domestic Wastes - Option #2: The annual pollution charge is the product obtained by multiplying the "Annual Charge Per 1,000 Gallons" as determined from Figure I-B of these regulations by 0.001 times the number of gallons of domestic wastes discharged or to be discharged per day. If the domestic waste is disinfected in a manner approved by the department, the annual charge shall be reduced by 33 1/3%. If the domestic waste receives primary treatment including disinfection in a manner approved by the department, the annual charge shall be reduced by 50%. (This option provides a method of computing an annual pollution charge where the daily volume of domestic waste is known and relatively invariable throughout the year as in the case of most municipalities. To compute the charge by this method one must know the mean annual flow of the receiving waters and the number of thousands of gallons of domestic waste discharged per day (i.e. number of gallons x 0.001). To illustrate, if a municipality discharges 10,000 gallons of domestic waste per day into receiving waters having a mean annual flow of 50 cubic feet per second, one would compute the annual pollution charge by: (1) dividing the mean annual flow by the number of thousands of gallons of domestic waste discharged per day to obtain the "Dilution in cubic feet per second of mean annual flow per 1,000 gallons per day" (50 + 10 = 5 c.f.s.); (2) referring to Figure I-B to determine the "Annual charge per 1,000 gallons" ($234.00), (3) Multiplying the "Annual charge per 1,000 gallons" by the number of thousands of gallons of domestic waste discharged per day to obtain the annual pollution charge ($234.00 x 10 = $2,340.00)).

(c) Domestic Wastes - Option #3: The daily pollution charge is the product obtained by multiplying the "Daily Charge Per 1,000 Gallons" as determined from Figure I-C of these regulations by 0.001 times the number of gallons discharged or to be discharged during that day. The annual pollution charge for domestic wastes computed on this basis is the sum of the daily pollution charges for the charge year. If the domestic waste is disinfected in a manner approved by the department, the annual pollution charge shall be reduced by 33 1/3%. If the domestic waste receives primary treatment including disinfection in a manner approved by the department, the annual charge shall be reduced by 50%. (This option provides a method of computing an annual pollution charge where the domestic waste discharged varies in volume and/or frequency as in the case of some households and seasonally occupied establishments. It should also be used where discharges are monitored as provided for in section 5(d) of these regulations. To compute the annual charge by this method one must know the mean annual flow of the receiving waters and the number of thousands of gallons of domestic waste discharged on each day that a discharge occurs (number of gallons x 0.001). To illustrate, if a ski lodge discharges domestic waste three days in a year as follows: 700 gallons in day #1, 1,600 gallons in day #2 and 2,000 gallons in day #3, into receiving waters having a mean annual flow of 10 cubic feet per second, one would compute the annual pollution charge by: (1) dividing the mean annual flow by the number of thousands of gallons of domestic waste discharged on day #1 to obtain the "Dilution in cubic feet per second of mean annual flow per 1,000 gallons per day" (10 ÷ 0.7 = 14.3 c.f.s.); (2) referring to Figure I-C to determine the "Daily charge per 1,000 gallons" ($0.443 (3) multiplying the "Daily charge per 1,000 gallons" by the number of thousands of gallons of domestic waste discharged on day #1 to obtain the pollution charge for day #1 ($0.443 x 0.7 = $0.31); (4) repeating steps (1), (2) and (3) for the discharge of 1,600 gallons on day #2 and 2,000 gallons on day #3 (day #2 charge = $0.95; day #3 charge = $1.28 ; (5) adding the charges for day #1, day #2 and day #3 to obtain the annual pollution charge ($0.31 + $0.95 + $1.28 = $2.54)).

(d) Non-Domestic Wastes Containing Biochemical Oxygen Demand and/or Suspended Solids: The daily pollution charge is the product obtained by multiplying the "Daily Charge Per Pound" as determined from Figure II of these regulations by the total number of pounds of biochemical oxygen demand and suspended solids discharged or to be discharged during that day. The annual pollution charge is the sum of the daily pollution charges for the charge year. (This subsection and its corresponding Figure II provide the method of computing annual pollution charges for commercial and industrial discharges such as dairy wastes, cheese making wastes, paper making wastes and granite wastes. To compute the charge by this method one must know the mean annual flow of the receiving waters and the number of pounds of BOD and suspended solids discharged on each day that a discharge occurs. No distinction in relative degrading effect is made between BOD and suspended solids and thus when both are present in a particular waste discharge, the computation is based upon the total number of pounds of BOD and suspended solids (i.e. lbs. BOD + lbs. suspended solids = number of pounds of waste). To illustrate, if an industry discharges waste containing 100 pounds of BOD and 50 pounds of suspended solids each day during the year into receiving waters having a mean annual flow of 100 cubic feet per second, one would compute the annual pollution charge by: (1) referring to Figure II to determine the "Daily charge per pound" ($0.0844); (2) adding the number of pounds of BOD and suspended solids to determine the total number of pounds (100 + 50 = 150 lbs.); (3) multiplying the "Daily charge per pound" by the total number of pounds to obtain the daily pollution charge ($0.0844 x 150 = $12.66; (4) multiplying the daily charge by the number of days in the year to obtain the annual pollution charge ($12.66 x 365 = $4,620.90). Where the number of pounds of BOD and/or suspended solids varies from day to day or where the industry does not discharge each day of the year, the daily charge must be computed for each day of discharge and the annual pollution charge is obtained by adding all the daily charges for the year).

(e) For heated effluents: The pollution charge rate for heated effluents for which a temporary pollution permit has been granted is \$0.025 per million British thermal units. (This subsection provides the method of computing annual pollution charges for commercial, industrial and utility discharges involving heated effluents. To compute the charge by this method one must know the volume and mean daily temperature of the heated effluent discharged each day and the mean daily ambient temperature of the receiving waters. The charge rate is fixed at \$0.025 per million British thermal units. To illustrate, if in one day a utility discharges 1,000,000 gallons of heated effluent at a mean daily temperature of 120°F. into receiving waters having a mean daily ambient temperature of 70°F., the pollution charge for that day would be computed by : (1) subtracting the ambient temperature of the receiving waters from the temperature of the heated effluent discharged to obtain the temperature differential (120° - 70° = 50°F.); (2) multiplying the number of gallons discharged that day by 8.34 pounds per gallon to obtain the pounds of water discharged (1,000,000 x 8.34 = 8,340,000 lbs.); (3) multiplying the pounds of water discharged by the temperature differential to obtain the number of British thermal units discharged that day (8,340,000 x 50 = 417,000,000 b.t.u.); (4) multiplying the number of British thermal units discharged that day by 0.000001 to obtain the number of million British thermal units discharged that day (417,000,000 x 0.000001 = 417); (5) multiplying the number of million British thermal units discharged that day by $0.025 to obtain the pollution charge for that day (417 x $0.025 = $10.42). The annual pollution charge is the sum of the daily charges.

§4 - Time When Pollution Charges Begin to Accrue; Charge Years

(a) Except as set forth in subsection (b) of this section, pollution charges for temporary pollution permittees shall begin to accrue on July 1, 1972 or at such time thereafter as the permittee first discharges pursuant to the permit.

(b) Pollution charges as established above for any temporary pollution permittee who abandons or rescinds or refuses to carry out his plans upon which the temporary permit has been granted shall accrue from July 1, 1971, or such time thereafter as the permittee first discharged pursuant to the permit.

(c) A pollution charge year shall commence on July 1 and terminate on the following June 30.

§5 - Assessment of Charges

(a) Annually, on or before April 1, the department shall compute pollution charges for each temporary pollution permittee for the following charge year using information contained in each application for a permit, any supplementary information filed by the permittee and mean annual flow data available to the department. Any permittee who believes that his application does not contain accurate or reliable information upon which to compute the annual pollution charge shall, on or before March 1, file with the department in writing such supplementary information as he deems will enable the department to arrive at a more accurate and reliable computation of the annual pollution charge. The department shall consider but shall not be bound by such supplementary information.

(b) Annually, on or before April 15, the department shall give written notice to each permittee of his annual pollution charge and the method of computing it, which notice shall be deemed the assessment of the charge. Any permittee aggrieved by such assessment may appeal to the board pursuant to 10 V.S.A. §914a.

(c) Except for those permittees who elect to monitor and be charged in accordance with subsection (d) of this section, the pollution charge for a charge year shall be the amount assessed by the department, as revised on appeal, unless reduced pursuant to section 6 of this regulation.

(d) Any permittee may elect at any time to monitor his discharges by methods, equipment and at frequencies approved by the department and have his annual pollution charges computed and assessed in accordance with the results of such a monitoring program. A permittee so electing shall give notice in writing to the department and shall specify therein the method, equipment and frequency by which the monitoring program is to be carried out. If the department approves such monitoring program, it shall give its conditional approval to the permittee in writing. The permittee may then proceed to install any necessary monitoring equipment and arrange for testing and such other activities as are necessary to carry out the approved monitoring program. The department shall make a final inspection when the program is ready for implementation and, if the department gives final approval in writing, the pollution charges thereafter shall be computed and assessed on the basis of the monitoring results when and while the program is operational. Every monitoring program shall provide for periodic reports at such intervals as the department deems proper for the permittee and shall provide for a final report to be submitted not later than 15 days following the end of each charge year. Not later than 15 days after receipt of the final monitoring report, the department shall compute the pollution charge due from the permittee for the charge year and give written notice of its assessment to the permittee. If the department has reason to believe that the final report does not accurately reflect the actual discharges of the permittee, it may compute and assess the charges using the information and data referred to in subsection (a) of this section.

(e) If a permittee abandons or rescinds or otherwise fails or refuses to carry out his plans upon which the permit has been granted, the department shall thereupon compute and assess in writing in accordance with these regulations the pollution charges accruing since July 1, 1971.

§6 - Reductions in Charges for Reductions in Volume and Degrading Quality of Wastes: A permittee may reduce his annual charge by reducing the volume and degrading quality of his waste in a manner and following the procedures hereinafter specified.

(a) Domestic Wastes: A permittee whose charges are computed and assessed pursuant to subsections (a), (b) and (c) of section 3 may reduce his annual charge by:

(1) disinfection of the domestic waste before discharge in a manner approved by the department in which case that portion of the annual charge applicable to the period during which disinfection is provided shall be reduced by 33 1/3%; or

(2) providing primary treatment including disinfection to the domestic waste before discharge in a manner approved by the department in which case that portion of the annual charge applicable to the period during which primary treatment is provided shall be reduced by 50%.

(b) Domestic Wastes: A permittee who is or will be discharging domestic wastes, other than one who monitors and is assessed pursuant to section 5(d), may also reduce his annual charge as follows:

(1) A permittee whose charges are computed and assessed pursuant to section 3(a) may reduce his charges by establishing to the satisfaction of the department that the number of

persons whose domestic wastes are being or to be discharged is and will continue to be less than when the annual charge was assessed.

(2) A permittee whose charges are computed and assessed pursuant to section 3(b) may reduce his charges by establishing to the satisfaction of the department that the number of gallons of domestic wastes being or to be discharged during the charge year is and will continue to be less than when the annual charge was assessed.

(3) A permittee whose charges are computed and assessed pursuant to section 3(c) may reduce his charges by establishing to the satisfaction of the department: (A) that the number of gallons of domestic wastes being or to be discharged on any days of the charge year is and will continue to be less than when the annual charge was assessed; and/or (B) that the number of days on which domestic wastes are being or to be discharged is and will continue to be less than when the annual charge was assessed.

(c) Non-Domestic Wastes: Except for those permittees who monitor and are assessed pursuant to section 5(d), a permittee who is or will be discharging wastes other than domestic wastes may reduce his annual charge as follows:

(1) A permittee whose charges are computed and assessed pursuant to section 3(d) may reduce his charges by establishing to the satisfaction of the department: (A) that the total number of pounds of biochemical oxygen demand and suspended

solids being or to be discharged on any days of the charge year is and will continue to be less than when the annual charge was assessed; and/or (B) that the number of days on which such wastes are being or to be discharged is and will continue to be less than when the annual charge was assessed.

(2) A permittee whose charges are computed and assessed pursuant to section 3(e) may reduce his charges by establishing to the satisfaction of the department that the total number of British thermal units for the charge year is and will continue to be less than when the annual charge was assessed.

(d) Procedure for reducing charges: A permittee who has reduced the volume and/or degrading quality of his waste so as to entitle him to a reduction in the annual pollution charge assessed may petition the department in writing for an amendment to his temporary pollution permit and a reduction in his annual charge assessment. The petition shall specify the reason why the permittee is entitled to a reduction in his annual charge, the means, if any, by which the reduction in volume and/or degrading quality of the waste have been affected and the more stringent discharge limitations that the permittee is capable of meeting. The department shall consult with the permittee, test the waste discharged, inspect and approve or disapprove of any modifications in the waste treatment system or facility, if necessary, and determine if the permittee is entitled to a reduction in his annual charge. If the department determines that the permittee is not entitled to a reduction in his annual charge, it shall notify the permittee to this effect in writing and shall specify therein the basis of the determination. If the department determines that the permittee is entitled to a reduction in his annual charges, it shall: (1) amend the temporary pollution permit so as to impose the more stringent discharge limitations which the permittee is capable of meeting for the duration of the permit; and (2) issue a new assessment reflecting the reduction in the annual pollution charge to which the permittee is entitled. A permittee aggrieved by any determination of the department pursuant to this subsection may appeal to the board pursuant to 10 V.S.A. §914a.

§7 - Payment of Annual Pollution Charges:

(a) Except as provided in subsection (b) of this section, all annual pollution charges shall be paid on or before the August 15th following the termination of the charge year.

(b) A permittee who abandons or rescinds or otherwise fails or refuses to carry out his plans upon which the permit has been granted shall pay all pollution charges assessed pursuant to section 5(e) within 30 days after receipt of the written assessment from the department.

(c) Checks shall be made payable to the State of Vermont and transmitted to the Water Resources Department, Montpelier, Vermont, 05602.

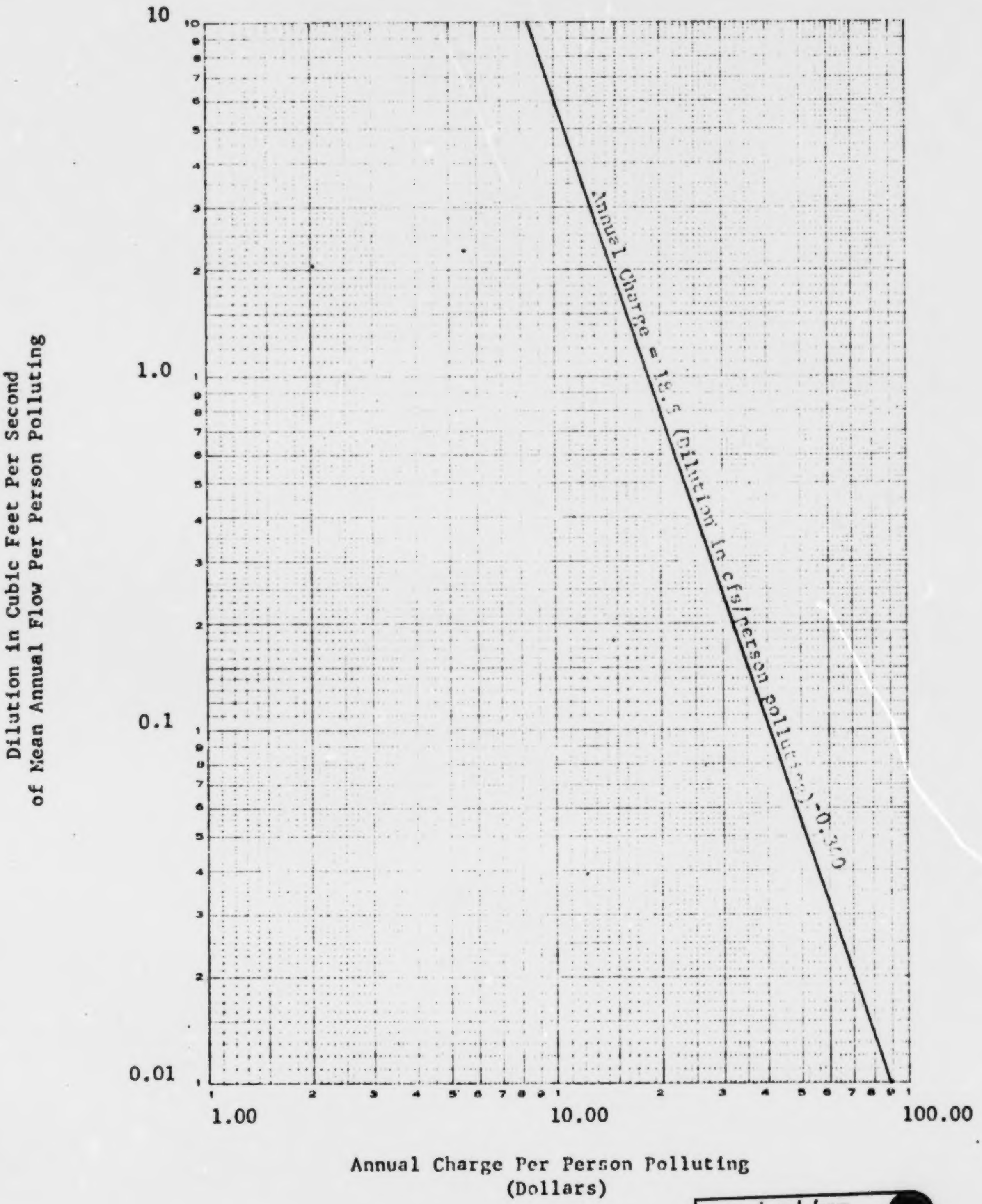

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FIGURE I-A

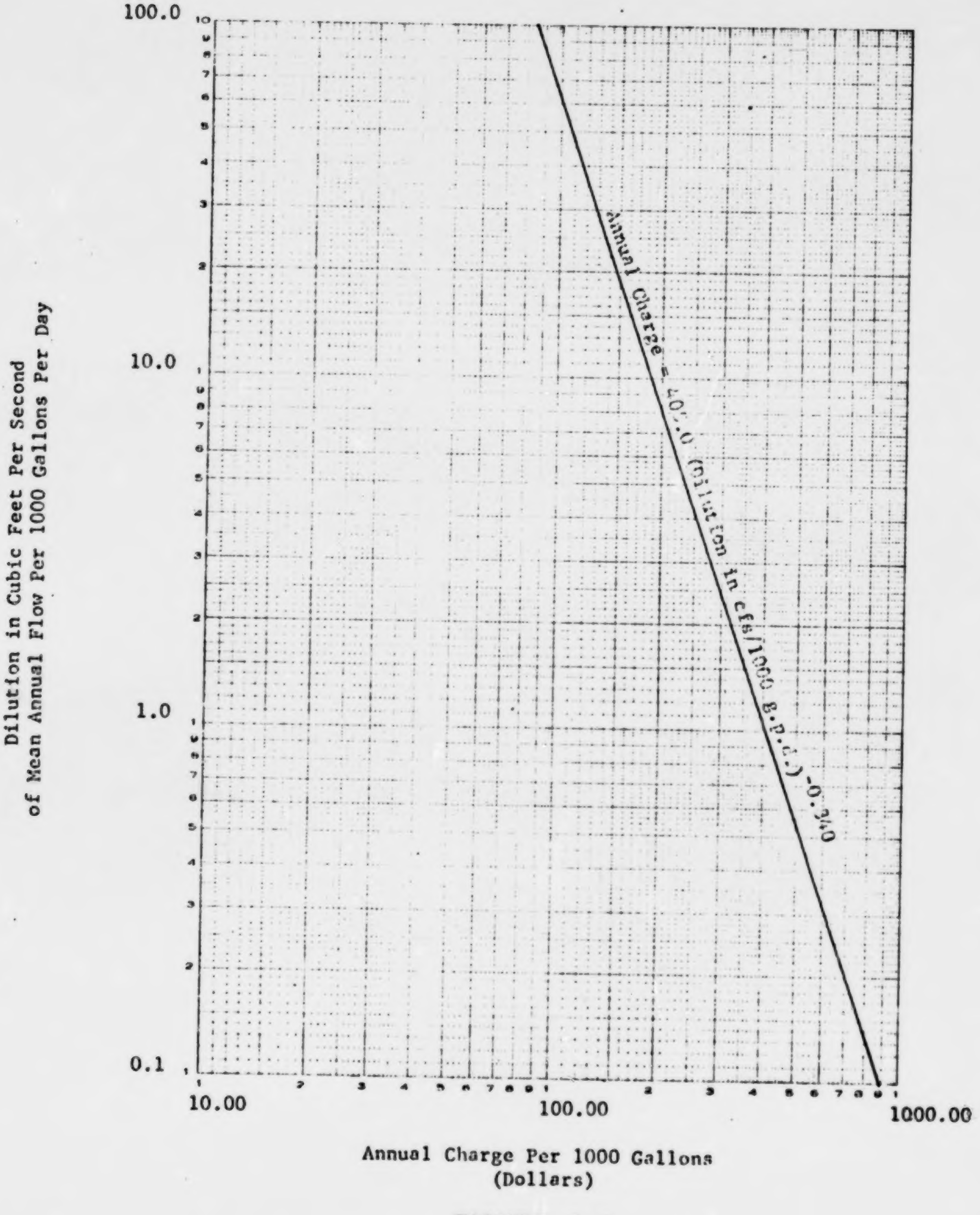
Dilution in Cubic Feet Per Second
of Mean Annual Flow Per 1000 Gallons Per Day
100.0
10.0
1.0
0.1
10.00
100.00
1000.00
Annual Charge = 407.0 (Dilution in cfs/1000 g.p.d.) -0.340
Annual Charge Per 1000 Gallons
(Dollars)

FIGURE I-B

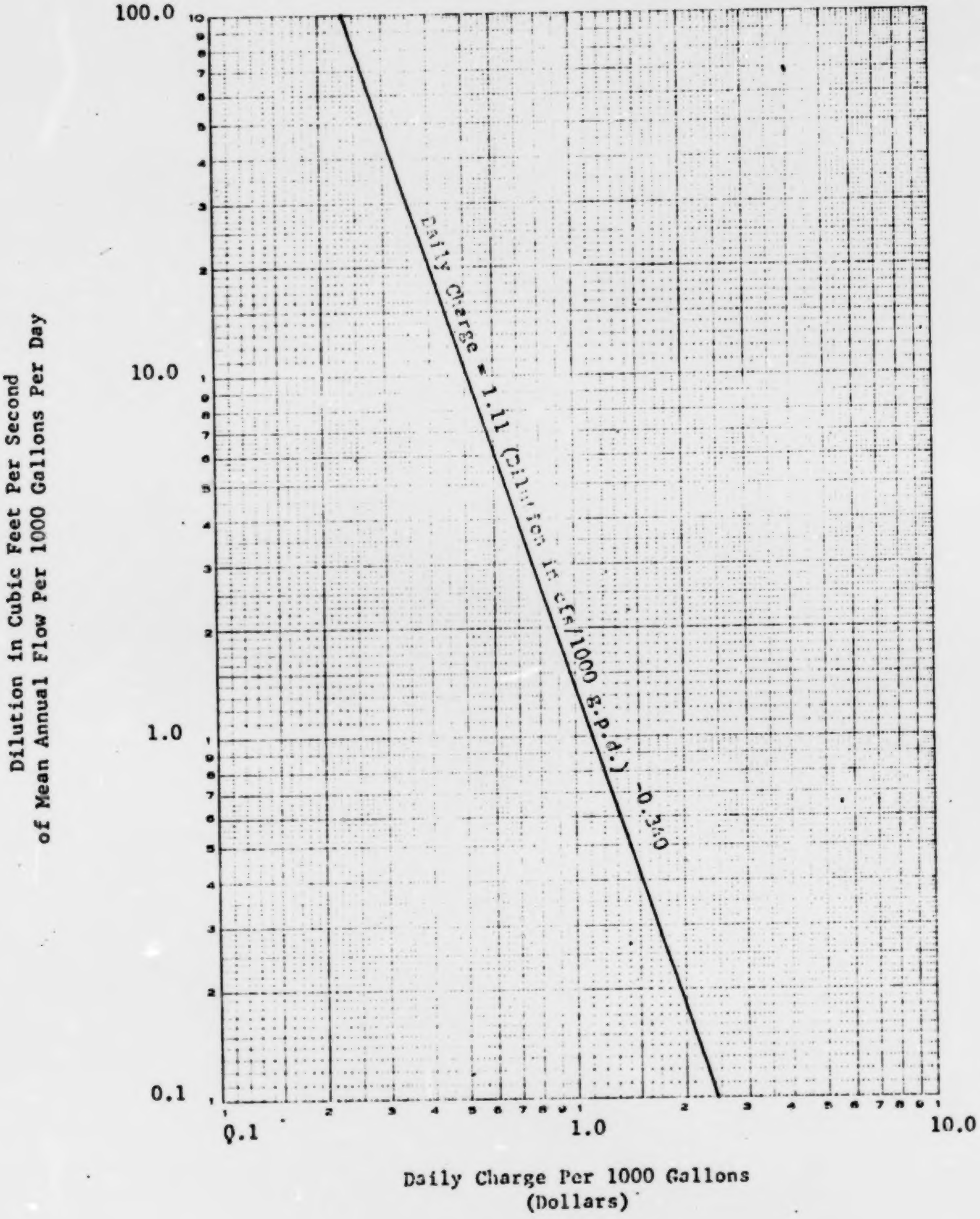
Dilution in Cubic Feet Per Second
of Mean Annual Flow Per 1000 Gallons Per Day
100.0
10.0
1.0
0.1
0.1
1.0
10.0
Daily Charge Per 1000 Gallons
(Dollars)
Daily Charge = 1.11 (Dilution in cfs/1000 g.p.d.) -0.340

FIGURE I-C

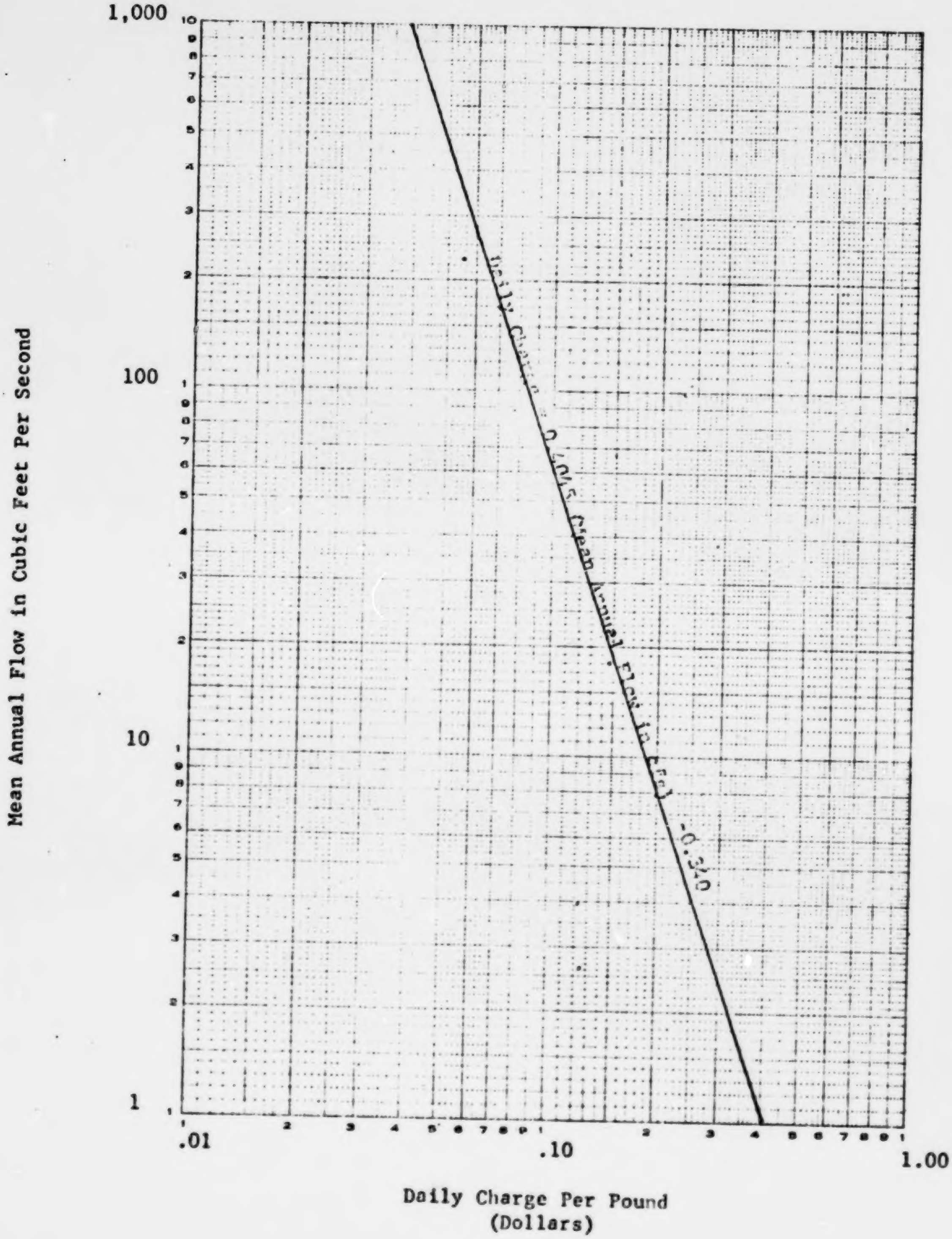
1,000
100
10
1
.01
.10
1.00
Mean Annual Flow in Cubic Feet Per Second
Daily Charge Per Pound
(Dollars)
Daily Charge = 0.4045 (Mean Annual Flow in cfs) -0.340

FIGURE II

January 11, 1972

EXPLANATORY NOTES FOR THE APPLICATION OF PROPOSED POLLUTION CHARGE RATES TO TOWNS AND INDUSTRIES

Note No. 1) Under the proposed amendments to 10 V.S.A., paragraph 912a, all towns, cities, municipalities, Fire Districts, and school districts holding a temporary pollution permit will be exempt from the proposed pollution charges unless and until they depart from the abatement schedule contained in their temporary pollution permit.

Note No. 2) The information in the attached Table was compiled from the best available data, and may be subject to minor adjustments.

Note No. 3) Several towns requiring temporary pollution permits after July 1, 1972 were omitted from the attached Table because sufficient data was not available in time for this release.

Note No. 4) The attached Tabulation of proposed pollution charges for industries does not include all industries requiring temporary pollution permits after July 1, 1972 and is for purposes of illustration only.

TOWNS REQUIRING TEMPORARY POLLUTION PERMITS AFTER JULY 1972

	A	B	C	D	E	F	G
Town	Mean Annual Flow cfs	No. of Pollutors	A ÷ B	Population Served	Annualization Cost - Bonds & Operation $/person/yr	Annual Charge per Pollutor	Annual Charge per Town
Arlington	322.0	220	1.464	1550	33.00	$ 16.26	$ 3,577.20
Barton	139.0	1169	0.119	1380	21.56	38.14	44,585.66
Benson	1.0	42	0.0238	158	24.00	66.07	2,774.94
Bethel	683.0	138	4.949	960	32.44	10.74	1,482.12
Brandon	725.0	178	4.073	2700	8.46	11.48	2,043.44
Bridgewater	174.2	18	9.678	200	53.00	8.56	154.08
Brighton	60.5	300	0.202	400	88.60	31.84	9,552.00
Canaan	666.7	100	6.667	625	51.50	9.71	971.00
Chelsea	39.3	175	0.225	362	50.19	30.73	5,377.75
Coventry	202.2	56	3.611	- -	- -	11.96	669.76
Danville	4.0	70	0.0571	- -	- -	48.94	3,425.80

	A	B	C	D	E	F	G
Town	Mean Annual Flow cfs	No. of Pollutors	A ÷ B	Population Served	Annualization Cost - Bonds & Operation $/person/yr	Annual Charge per Pollutor	Annual Charge per Town
Derby Center	226.0	185	1.222	472	15.00	$ 17.27	$ 3,194.95
Derby Line	48.0	635	0.0756	849	18.00	44.47	28,238.45
*Enosburg Falls	1105.6	1680	0.658	1680	16.00	21.34	35,851.20
Glover	32.4	69	0.470	230	31.00	23.90	1,649.10
Hardwick	195.9	1420	0.138	1420	25.00	36.27	51,503.40
Hartford	1136.0	810	1.402	3400	24.40	16.49	13,356.90
Hyde Park	455.6	340	1.340	420	82.00	16.74	5,691.60
*Lunenburg	2837.0	465	6.101	465	66.00	10.00	4,650.00
Lyndon	369.0	3500	0.1034	2180	21.09	40.13	140,455.00
Marshfield	67	35	1.914	350	32.00	14.84	519.40
Milton	1176	780	1.508	3890	29.67	16.09	12,550.20
Morrisville	366.3	2100	0.174	2100	14.50	33.51	70,371.00
North Troy	267.9	263	1.019	900	21.75	18.39	4,836.57
Orleans	291.0	1200	0.243	1254	26.17	29.94	35,928.00

	A	B	C	D	E	F	G
Town	Mean Annual Flow cfs	No. of Pollutors	A ÷ B	Population Served	Annualization Cost - Bonds & Operation $/person/yr	Annual Charge per Pollutor	Annual Charge per Town
Orwell	22.3	80	0.279	204	36.00	$ 28.64	$ 2,291.26
Pawlett	34.2	250	0.137	441	40.00	36.35	9,087.50
Putney	22.5	70	0.321	330	36.00	27.61	1,932.70
Randolph	200.0	2230	0.0897	2230	12.00(new const)	42.24	94,195.20
Readsboro	413	215	1.921	570	60.00	14.85	3,192.75
Richmond	1425.0	465	3.065	732	69.00	12.63	5,872.95
Rochester	136.6	400	0.342	525	12.60	26.66	10,664.00
Ryegate	98.9	260	0.368	490	43.99	25.98	6,754.80
Saxtons River	111.9	530	0.211	530	34.00	31.36	16,620.80
Stowe	138.9	221	0.629	1150	55.40	21.66	4,786.86
Swanton	1616.9	2300	0.703	2300	11.61	20.86	47,978.00
*Troy	206.0	122	1.689	210	120.00	15.48	1,888.56
Wallingford F.D. #	180.6	84	2.150	580	28.80	14.25	1,197.00

	A	B	C	D	E	F	G
	Mean Annual Flow	No. of Pollutors		Population Served	Annualization Cost - Bonds & Operation	Annual Charge per Pollutor	Annual Charge per Town
Town	cfs		A ÷ B		$/person/yr		
Whitingham	19.4	276	0.0703	307	48.00	$ 45.57	$ 12,577.32
Woodstock (Taftsville)	330.6	35	9.446	80	87.06	8.61	301.35

* These towns treat a significant amount of industrial wastes. The industrial contribution toward capital and operation costs have not been included in these calculations.

APPROXIMATE LIST OF VERMONT INDUSTRIES REQUIRING TEMPORARY POLLUTION PERMITS JULY 1, 1972

(BOD and S.S. values are "best estimates" from available information)

	A	B	C	D	E	F	G
Company	Mean Annual Flow	lbs. BOD per year	lbs. Org. S.S. per year	lbs. Inorg. S.S. per year	Total lbs.	Annual Charge per unit	Annual Charge for Company
Adams Paper Mill	134	55,000	67,400	96,600	219,000	$ 0.0765	$ 16,753.50
Bridgewater Woolen Co.	175	265,000	126,000	0	391,000	0.0700	27,370.00
Cabot Farmers Coop Bradford	261	9,750	11,200	0	20,950	0.0610	1,277.95
Forest Poultry Corp.	1000	204,000	58,600	1,800	264,400	0.0395	10,443.80
Missisquoi Specialty Board	1500	98,000	272,000	14,400	384,400	0.0336	12,915.84
Mountain Paper Products	8460	76,000	129,500	70,500	276,000	0.0187	5,161.20
National Fiber	136	166,000	315,800	26,200	508,000	0.0762	38,709.60
Putney Paper	23	140,000	21,900	3,100	165,000	0.139	22,935.00
Ryegate Paper	3876	162,000	190,000	81,500	433,500	0.0244	10,577.40

Appendix B

VERMONT WATER RESOURCES BOARD
State of Vermont
Agency of Environmental Conservation

RULES ESTABLISHING POLLUTION CHARGES AND RESTATING PERMIT APPLICATION FEES IN ACCORD WITH TITLE 10, VERMONT STATUTES ANNOTATED, CHAPTER 33, AS AMENDED

Rule 1. Definitions

The following words and phrases shall have the meaning ascribed to them unless the context clearly indicates otherwise:

(1) "Act" means the water pollution control act, Title 10, Vermont Statutes Annotated, Chapter 33, as amended;

(2) "Applicant" means any person as defined herein who has made application to the Department for a discharge permit or temporary pollution permit;

(3) "Board" means the Vermont Water Resources Board;

(4) "Department" means the Department of Water Resources of the Agency of Environmental Conservation;

(5) "Discharge" means the placing, deposition or emission of any wastes, directly or indirectly, into the waters of the State;

(6) "Permittee" means any person as defined herein who has been issued a discharge permit or temporary pollution permit by the Department or any person to whom a permit has been transferred as approved by the Department;

(7) "Person" means person as defined in 10 V.S.A. 901 (4).

(8) "Pollution Abatement Facility" means any waste treatment system or pre-treatment facility and appurtenant works, process, procedures, and operations required by the Department to modify the characteristics of the applicant's wastes to meet water quality standards established by the Act and these regulations;

(9) "Public Interest" means that which shall be for the greatest benefit to the people of the State as determined by the standards set forth in section 903 (e) of the Act;

(10) "Waste" means effluent, sewage or any substance or material, liquid, gaseous, solid or radioactive, including heated liquids, whether or not harmful or deleterious to waters;

(11) "Waters" shall include all rivers, streams, creeks, brooks, reservoirs, ponds, lakes, springs and all bodies of surface waters, artificial or natural, which are contained within, flow through, or border upon the State or any portion thereof;

(12) "Water Quality Standards" means the Regulations Governing Water Classification and Control of Quality as may at any time be adopted by the Board.

Rule 2. Temporary Pollution Permits; Applications

A person who does not qualify for or has been denied a discharge permit shall apply to the department for a temporary pollution permit. Application shall be made on a form prescribed by the department and shall contain such information as the department may require. The department may require such person to submit any additional information it considers necessary for proper evaluation of the application. The department shall inform the applicant of the reasons why he does not qualify for a discharge permit, together with a clear and concise description of the degree of treatment necessary for him to qualify for a discharge permit, whereupon the applicant for his part shall indicate in a manner satisfactory to the department his acceptance of providing such degree of treatment or appeal to the Board or cease and desist from further discharges of polluting wastes. In the Temporary Pollution Permit that thereafter may be issued to the applicant, the degree of required treatment, the technical steps necessary to accomplish such treatment and a time-schedule for the completion of each step shall be set forth as conditions thereof, and the applicant shall communicate his understanding of such conditions in a manner satisfactory to the department before such permit shall take effect.

Rule 3. Pollution Charges per Unit of Waste

The following pollution charges for computing the amounts to be paid by temporary pollution permittees are established as just and reasonable to fulfill the purposes of the act:

(1)	Per pound of biochemical oxygen demand discharged to the waters of the State	$0.035
(2)	Per pound of suspended solids discharged to the waters of the State	$0.025
(3)	Per 1000 gallons of liquids requiring disinfection discharged to the waters of the State	$0.01

Rule 4. Pollution Charges, Per Person Equivalent

For purposes of computing the per person equivalent in the case of pollution charges for homes, domiciles and residences, either permanent, temporary or seasonal, the wastes per person for each day are assumed to contribute 0.2 pounds of biochemical oxygen demand, 0.2 pounds of suspended solids, and 100 gallons of liquid requiring disinfection. For purposes of computing accrued pollution charges, temporary or seasonal residences are deemed to be used six months a year and permanent residences are deemed to be used twelve months a year unless otherwise established by the permittee to the satisfaction of the Department. For all other sources of wastes the Department shall furnish a Temporary Pollution Permittee with figures representing the pounds of biochemical oxygen demand, the pounds of suspended solids and the gallons of liquid requiring disinfection, which can reasonably be expected and inferred from the use and occupancy of his premises or operations, for such period of time as is most applicable to such use and occupancy, together with the computation of the per person equivalent where applicable.

Rule 5.   Pollution Charges, Heated Effluents

For the discharge of effluents heated in excess of the permissible increment of temperature increase specified by the water quality standards applicable to the receiving waters, the charge for such addition of heat is $0.025 per 1,000,000 British Thermal Units.

Rule 6.   Temporary Pollution Permits, Municipalities

Every municipality of the State which has not already done so shall inform the Department, within 30 days of the promulgation of these rules or at such later date as required by the Department, whether it intends to abate any pollution within its boundaries which is reducing the quality of the receiving waters below the established classification by a central pollution abatement facility. If the municipality intends to abate its pollution by such a facility and if the Department determines that the proposed central pollution abatement facility is technically and economically feasible and of a suitable type, capacity and design to be eligible for state and federal construction grants, the Department shall issue a Temporary Pollution Permit to the municipality in accordance with the act and these rules. If, however, such state and federal funds are not available for allocation to such a municipality, the Department shall issue to such a municipality a Temporary Pollution Permit which shall set forth as conditions such requirements as the Department finds reasonable and appropriate, including but not restricted to the degree of preliminary planning necessary and the maximum volume and degrading quality of the wastes to be treated. Within three months after such state and federal funds become available, the Department shall amend such a Permit in accordance with the act and these rules.

Rule 7.   Pollution Charges, Dates of Accrual

For those persons whose discharges are degrading the waters of the State below the established classification on or after July 1, 1972, pollution charges shall accrue from July 1, 1972, or thereafter, provided, however, that in the case of municipalities and persons connected to a municipal system operating under a temporary pollution permit, such charges shall not begin to accrue until three months after the Department notifies the permittee to the effect that state and federal funds have been allotted. Such charges shall cease to accrue on the date that the holder of a Temporary Pollution Permit qualifies for a discharge permit.

Rule 8.   Pollution Charges Deferred

The pollution charges accrued during each fiscal year in which a permittee complies strictly with each of the requirements, conditions and restrictions of his permit shall be deferred.

Rule 9.   Pollution Charges Excused

Deferred charges shall be excused and charges paid for non-compliance with the terms of a permit shall be refunded if the permittee achieves compliance with the terms of his permit by his expiration date.

Rule 10. Discharge Permits (Restatement of Rule 6 adopted July 9, 1971)

a) Any person intending to discharge wastes into the waters of the State on and after July 1, 1971 shall make application to the Department for a discharge permit. Application shall be made on a form prescribed by the Department and shall contain such information as the Department may therein require. The applicant shall pay to the Department at the time of submitting his application the following fees:

(1)	Applicants whose wastes are domestic in character and do not exceed 1,000 gallons per day	$10.00
(2)	All other applicants	$50.00

Rule 11. Temporary Pollution Permits (Restatement of Rule 7 adopted July 9, 1971)

A person who does not qualify for or has been denied a waste discharge permit may apply to the Department for a Temporary Pollution Permit. Application shall be made on a form prescribed by the Department and shall contain such information as the Department may there in require. The Department may require such person to submit any additional information it considers necessary for proper evaluation. The applicant shall pay to the Department at the time of submitting his application the following fees:

(1)	Applicant whose wastes are domestic in character and do not exceed 1,000 gallons per day	$20.00
(2)	All other applicants	$100.00

Adopted June 29, 1972 by the
Vermont Water Resources Board

Filed by:

William A. Irwin

William A. Irwin
Executive Secretary

Appendix C

Michigan Water Resources Commission
Act 293 Reports
P.O. Drawer M
Lansing, Michigan 48926

Bulk Rate
U.S. Postage
PAID
Lansing, Mich.
Permit 1200

ATTENTION PERSON IN CHARGE OF ENVIRONMENTAL ACTIVITIES.

STATE OF MICHIGAN DEPARTMENT OF NATURAL RESOURCES

MICHIGAN WATER RESOURCES COMMISSION

WASTEWATER REPORT FORMS AND INSTRUCTIONS

Completion And Return Of This Form Is Required By State Law
Deadline for filing is *December 15, 1973*.

This booklet contains the necessary forms and instructions for reporting of wastewater and critical materials data to comply with Michigan Act 293, P.A. 1972. All businesses which discharge wastewater to the waters of the State (including groundwaters), or wastewater in addition to sanitary sewage to any sewer system are required to file this annual report.

A separate report is required for each location at which your company does business.

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GENERAL INSTRUCTIONS

Information supplied in this report should reflect your company's operation during calendar year 1973. This will necessitate preparing the report prior to the end of the reporting period in order to meet the December 15, 1973, filing deadline. In the event of significant change in wastewater disposal after the report has been filed, an amendment to the report outlining the change should be filed. Also, an interim report is required when:

1. The use of a critical material not previously reported is commenced during the year, or
2. Usage or discharge of a critical material increases sufficiently to move the level of usage or discharge into a higher category on the critical materials report (Form III, Page 9).

Whatever the nature of your business and resulting waste disposal practices take the time to completely and accurately fill out the forms since surveillance fees will be calculated using data directly from the forms. Any omission of data affecting the fee calculation will automatically result in the entering of the maximum value for that factor in the calculation formula.

Read the instructions carefully and fully before beginning to complete the forms. Refer to page 14 for examples of completed forms properly filled out for an imaginary company. The examples are followed by an explanation of the surveillance fee calculation based on the return submitted by the same company.

If you need additional forms you may duplicate any you wish or request additional copies from:

Michigan Water Resources Commission
Act 293 Reports
P.O. Drawer M
Lansing, Michigan 48926

If you have any questions or require help in completing the forms you may call the following person for assistance:

Jerry Fore
(517) 373-2867

FORM I — GENERAL INFORMATION

A separate report is required for each location at which your company does business. If you have sold your facilities at this address please indicate the new owner's name and address below and return the form to us.

If any part of this mailing label is incorrect please use the space below to correct it.

If you have sold the business to the person listed below please check here ☐.

NAME OF COMPANY AND/OR OWNER'S NAME

PLANT NAME, ADDRESS OR CONTINUATION OF NAME

STREET ADDRESS OR BOX NUMBER

CITY STATE ZIP CODE

WRC USE ONLY

7 U

1 Primary D Level No. SIC 17

18 Rating 19 Acc. Prov.

1. Do you or did you own or operate a business (commercial or industrial) in the State of Michigan during any part of 1973 which discharged ANY wastewater (including cooling water and sanitary wastewater from toilets, washrooms, etc.), or which had wastewater removed by a wastehauler?

   A. ☐ Yes. Continue with Question 2.

Initial date ________ of operation during 1973	Final date ________ of operation during 1973

   If your business is not operating at the current time is it permanently closed? ☐ Yes ☐ No

   B. ☐ No. Skip Question 2 thru 7, sign the report and see page 10 for mailing instructions.

---

2. Is **ALL** of your wastewater sanitary sewage? (Note: Sanitary sewage includes wastewater from toilets, washrooms, drinking fountains, kitchens, laundries (except dry cleaning wastes) and other sanitary facilities which may produce human waste. Sanitary waste does **NOT** include cooling water, condenser water, or process wastewater.)

   A. ☐ Yes. Continue with question 3.

   B. ☐ No. Skip question 3. Continue with question 4. **You must complete and attach Form II, page 7.**

---

3. If **ALL** of your wastewater is sanitary sewage does it go to a septic tank or a municipal sanitary sewer?

   ☐ Yes. Septic Tank

   ☐ Yes. Sanitary sewer (Note: lagoons are not included in either of these catagories)

   If you marked either of the above skip questions 4 thru 7, sign the report, and see page 10 for mailing instructions.

   ☐ No. Continue with question 4. **You must complete Form II, page 7.**

4. Is any portion of your wastewater hauled away by a wastehauler or are you a wastehauler?

☐ Yes. Continue with question 5. **You must complete and attach Form IV-A or Form IV-B whichever is applicable.**
☐ No. Continue with question 5.

---

5. Do you use or discharge to the best of your knowledge any of the critical materials listed on page 13?

☐ Yes. Continue with question 6. **You must complete and and attach Form III, page 9.**
☐ No. Continue with question 6.

---

6. A. Please refer to page 5 and copy the appropriate standard industrial classification code in the box below (if none are applicable leave blank).

☐☐☐☐

B. Describe in detail the primary activities that generate wastewater at this facility.

Continue with question 7.

---

7. Schedule of operation

_______ hours/day _______ days/week _______ weeks/year
_______ hours/day _______ days/week _______ weeks/year
_______ hours/day _______ days/week _______ Weeks/year

Phone Number	**Number of Employees**
Name and Title of Person Completing Report (please print)	**Signature**

SEE PAGE 10 FOR MAILING INSTRUCTIONS

STANDARD INDUSTRIAL CLASSIFICATION CODES

Note: This is an edited list. Any facility which cannot be categorized with one of the following listings should leave the box on page 4, question 6, blank.

AGRICULTURE

Code	Title
0100	AGRICULTURAL PRODUCTION—CROPS
0200	AGRICULTURAL PRODUCTION—LIVESTOCK
0211	Beef Cattle Feedlots
0241	Dairy farms
0700	AGRICULTURAL SERVICES

MINING

Code	Title
1000	METAL MINING
1011	Iron Ores
1021	Copper ores
1081	Metal mining services
1300	OIL AND GAS EXTRACTION
1380	Oil and Gas Field Services
1400	NONMETALIC MINERALS
1422	Crushed and broken limestone
1440	Sand and Gravel
1450	Clay and Related Minerals
1470	Chemical and Fertilizer Minerals
1492	Gypsum

CONSTRUCTION

Code	Title
1500	GENERAL BUILDING CONTRACTORS
1600	HEAVY CONSTRUCTION CONTRACTORS

MANUFACTURING

Code	Title
2000	FOOD AND KINDRED PRODUCTS
2010	Meat Products
2011	Meat packing plants and slaughter houses
2020	Dairy Products
2030	Preserved Fruits & Vegetables
2033	Canned fruits and vegetables
2035	Pickles, sauces, and salad dressings
2037	Frozen fruits and vegetables
2040	Grain Mill Products
2043	Cereal breakfast foods
2047	Dog, cat, and other pet food
2050	Bakery Products
2060	Sugar and Confectionary Products
2063	Beet sugar
2070	Fats and Oils
2076	Vegetable oil mills
2077	Animal and marine fats & oils
2080	Beverages
2082	Malt beverages
2084	Wines, brandy, and brandy spirits
2085	Distilled liquor, except brandy
2086	Bottled and canned soft drinks
2087	Flavoring extracts and sirups, nec
2090	Misc. Foods and Kindred Products
2091	Canned and cured seafoods
2092	Fresh or frozen packaged fish
2200	TEXTILE MILL PRODUCTS
2300	APPAREL AND OTHER TEXTILE PRODUCTS
2400	LUMBER AND WOOD PRODUCTS
2420	Sawmills and Planing Mills
2430	Millwork, Plywood & Structural Members
2440	Wood Containers
2448	Wood pallets and skids
2450	Wood Buildings and Mobile Homes
2490	Miscellaneous Wood Products
2491	Wood preserving
2492	Particleboard
2500	FURNITURE AND FIXTURES
2600	PAPER AND ALLIED PRODUCTS
2611	Pulp mills
2621	Paper mills, except building paper
2631	Paperboard mills
2640	Misc. Converted Paper Products
2650	Paperboard Containers and Boxes
2661	Building paper and board mills
2700	PRINTING AND PUBLISHING
2710	Newspapers
2750	Commercial Printing
2790	Printing Trade Services

Code	Title
	Manufacturing-cont'd
2800	CHEMICALS AND ALLIED PRODUCTS
2810	Industrial Inorganic Chemicals
2820	Plastics Materials and Synthetics
2830	Drugs
2840	Soap, Cleaners, and Toilet Goods
2850	Paints and Allied Products
2860	Industrial Organic Chemicals
2870	Agricultural Chemicals
2890	Miscellaneous Chemical Products
2891	Adhesives and sealants
2892	Explosives
2893	Printing inks
2900	PETROLEUM AND COAL PRODUCTS
2911	Petroleum refining
2950	Paving and Roofing Materials
3000	RUBBER AND MISC. PLASTIC PRODUCTS
3011	Tires and inner tubes
3069	Fabricated rubber products
3079	Miscellaneous plastic products
3100	LEATHER AND LEATHER PRODUCTS
3111	Leather tanning and finishing
3200	STONE, CLAY, AND GLASS PRODUCTS
3220	Glass and Glassware, Pressed or Blown
3241	Cement
3250	Structural Clay Products
3260	Pottery and Related Products
3270	Concrete, Gypsum, and Plaster Products
3271	Concrete block and brick
3273	Ready-mixed concrete
3274	Lime
3275	Gypsum products
3290	Misc. Nonmetallic Mineral Products
3291	Abrasive products
3292	Asbestos products
3295	Minerals, ground or treated
3297	Nonclay refractories
3300	PRIMARY METAL INDUSTRIES
3310	Blast Furnaces and Basic Steel Products
3312	Blast furnaces and steel mills
3313	Electrometallurgical products
3315	Steel wire and related products
3316	Cold finishing of steel shapes
3317	Steel pipe and tubes
3320	Iron and Steel Foundries
3321	Gray iron foundries
3322	Malleable iron foundries
3330	Primary Nonferrous Metals
3331	Primary copper
3332	Primary lead
3333	Primary zinc
3334	Primary aluminum
3340	Secondary Nonferrous Metals
3361	Aluminum foundries
3362	Brass, bronze, and copper foundries
3390	Miscellaneous Primary Metal Products
3398	Metal heat treating
3400	FABRICATED METAL PRODUCTS
3410	Metal Cans and Shipping Containers
3420	Cutlery, Hand Tools, and Hardware
3430	Plumbing and Heating, Except Electric
3440	Fabricated Structural Metal Products
3442	Metal doors, sash, and trim
3443	Fabricated plate work (boiler shops)
3444	Sheet metal work
3450	Screw Machine Products, Bolts, etc
3460	Metal Forgings and Stampings
3462	Iron and steel forgings
3463	Nonferrous forgings
3465	Automotive stampings
3470	Metal Services
3471	Plating and polishing
3479	Metal coating and allied services
3480	Ordnance and Accessories
3490	Misc. Fabricated Metal Products
3500	MACHINERY, EXCEPT ELECTRICAL
3510	Engines and Turbines
3520	Farm and Garden Machinery
3530	Construction and Related Machinery
3540	Metalworking Machinery
3550	Special Industry Machinery
3560	General Industrial Machinery
3570	Office and Computing Machines
3580	Refrigeration and Service Machinery
3590	Misc. Machinery, Except Electrical
3600	ELECTRIC AND ELECTRONIC EQUIPMENT
3610	Electric Distributing Equipment
3620	Electrical Industrial Apparatus
3630	Household Appliances
3640	Electric Lighting and Wiring Equipment
3650	Radio and TV Receiving Equipment
3660	Communication Equipment
3670	Electronic Components and Accessories
3690	Misc. Electrical Equipment & Supplies

Code	Title
	Manufacturing-cont'd
3700	TRANSPORTATION EQUIPMENT
3710	Motor Vehicles and Equipment
3711	Motor vehicles and car bodies
3714	Motor vehicle parts and accessories
3715	Truck trailors
3720	Aircraft and Parts
3730	Ship and Boat Building and Repairing
3740	Railroad Equipment
3750	Motorcycles, Bicycles, and Parts
3760	Guided Missles, Space Vehicles, Parts
3790	Miscellaneous Transportation Equipment
3792	Travel Trailers and campers
3795	Tanks and Tank Components
3800	INSTRUMENTS AND RELATED PRODUCTS
3810	Engineering and Scientific Instruments
3820	Measuring and Controlling Devices
3830	Optical Instruments and Lenses
3840	Medical Instruments and Supplies
3860	Photographic Equipment and Supplies
3900	MISCELLANEOUS MANUFACTURING INDUSTRIES
3910	Jewelry, Silverware, and Plated Ware
3930	Musical Instruments
3940	Toys and Sporting Goods
3950	Pens, Pencils, Office and Art Supplies
3990	Miscellaneous Manufactures

TRANSPORTATION

Code	Title
4010	RAILROADS
4200	TRUCKING AND WAREHOUSING
4210	Trucking, Local and Long Distance
4221	Farm product warehousing and storage
4222	Refrigerated Warehousing
4230	Trucking Terminal Facilities
4400	WATER TRANSPORTATION
4430	Great Lakes Transportation
4440	Transportation on Rivers and Canals
4452	Ferries
4454	Towing and tugboat service
4460	Water Transportation Services
4463	Marine cargo handling

SERVICES

Code	Title
4900	ELECTRIC, GAS, AND SANITARY SERVICES
4911	Electric services
4925	Gas production and/or distribution
4953	Refuse systems
5810	EATING AND DRINKING PLACES
6512	OFFICE BUILDINGS
7000	HOTELS AND OTHER LODGING PLACES
7011	Hotels, motels, and tourist courts
7030	Camps and Trailering Parks
7032	Sporting and recreational camps
7210	Laundry, Cleaning & Garment Services
7215	Coin-operated laundries
7391	Laboratories — Testing and Research
7399	Water Softener Service
7500	AUTO REPAIR, SERVICES, AND GARAGES
7530	Automotive Repair Shops
7542	Car washes
7900	AMUSEMENT & RECREATION SERVICES
7933	Bowling alleys
7940	Commercial Sports
7941	Sports clubs and promoters
7948	Racing, including track operation
7992	Public golf courses
7996	Amusement parks
7997	Membership sports & recreation clubs
8000	HEALTH SERVICES
8050	Nursing and Personal Care Facilities
8060	Hospitals
8070	Medical and Dental Laboratories
8080	Outpatient Care Facilities

INSTRUCTIONS FOR FORM II

Note that information is to be reported separately for each outfall. An outfall, for purposes of this report, is considered to be any point at which wastewater enters the waters of the State (including groundwaters) or a sewer system. Complete a section of information for each wastewater discharge (multiple municipal sanitary sewer connections may be summarized as one outfall). If more than two outfalls are to be reported, Form II may be duplicated or additional copies will be supplied on request.

ITEM A — In the spaces provided first copy the six digit facility identification code number from the upper left hand corner of the mailing label (leave blank if number does not appear on label). Next, in the spaces marked OUTFALL NUMBER, number each outfall reported using any numbering system of not more than two digits. If you submit Monthly Operating Reports enter the appropriate station number in the spaces so marked.

ITEM B — Circle the number corresponding to the type of discharge. For surface water discharges list the name of the receiving water. A DISCHARGE TO A STORM SEWER which directly enters a watercourse is a SURFACE WATER DISCHARGE and must be reported as such. Lagoons with an outlet to surface waters must be reported as surface water discharges. Discharges to combined storm-sanitary sewer systems may be reported as municipal sanitary sewer discharges. For groundwater discharges specify the type of groundwater disposal by circling the appropriate subgroup under the groundwaters heading. For discharges to a sanitary sewer system list the name of the municipality operating the system.

ITEM C — Flow figures (Average, Minimum and Maximum) are to be reported in the appropriate spaces in units of million gallons per day (MGD). For example, a flow of 2,500 gallons per day would be recorded $\boxed{\text{.,0,0,2,5}}$ (note that decimal points are coded as digits), a flow of 5,000,000 gallons per day would be recorded $\boxed{\text{, 5,.,0}}$ (any blank spaces should be to the left). Round off flow figures as necessary to fit in space provided. The average daily flow figure should be based on the number of days during the year on which the outfall discharged —i.e.:

$$\text{Average Daily Flow} = \frac{\text{total outfall discharge volume for the year}}{\text{number of days discharge took place}}$$

except for lagoons, which should report

$$\text{Average Daily Flow} = \frac{\text{Total influent volume for the year}}{\text{number of days during which influent took place}}$$

Note: For lagoons, the average Daily Flow and Maximum Daily Flow are the same.

Indicate whether flow figures reported were measured or estimated by placing a check in the correct box.

ITEM D — Indicate the type of wastewater discharged by the outfall in relative percentages adding up to 100 percent. For purposes of this report, sanitary wastewater includes human sewage only, and cooling and condenser wastewater includes only uncontaminated water resulting from these practices. All other forms of wastewater are considered process wastewater.

ITEM E — Use this item to indicate months of operation of the outfall during calendar year 1973. If the outfall operated for the full year check this box. If the outfall began and/or ended operation during the year or if it was used only a few months or days list the date(s). If the outfall operated intermittently (on and off several times) indicate the number of days of discharge.

ITEM F - Briefly describe the nature and source of the wastewater from this outfall, a description of the outfall and the geographical location of the outfall. Location may be indicated by any of the following methods: Latitude and longitude in degrees, minutes and seconds; Tier, Range and section along with feet north and east of the southwest corner of the section; river miles upstream from the mouth of the river; distance from the nearest bridge along with the name of the road the bridge is on; nearest cross streets for sewer connections, or street address of a sewer connection point may be used where applicable. A marked and scaled map may be enclosed to satisfy the location requirement.

FORM II — WASTEWATER OUTFALL REPORT

(See Instructions on Facing Page and Example on Page 14)

A. 7,0 (1–8) Outfall Number ☐ (9–10) Monthly Operating Report Station Number (If Known—Otherwise leave blank) ☐ (11–16)

B. Water from this outfall is discharged to (Circle One Only)

1. Surface Waters ________ Name of receiving water
   Groundwaters (for storm sewers give where sewer discharges)
2. Lagoon or Seepage Pond With No Outlet
3. Spray Irrigation
4. Septic Tank – Tile Field
5. Deep Well Disposal
6. Surface of Ground
7. Other ________
8. Municipal Sanitary Sewer ________ Name of Municipality
(17)

C. Volume of Discharge

1. Avg. Daily Flow (MGD) ☐ (18–22)
2. Min. Daily Flow (MGD) ☐ (23–27)
3. Max. Daily Flow (MGD) ☐ (28–32)
4. Total Annual Flow (MGY) ☐ (33–38)

Was flow (Check One)
☐ measured or
☐ estimated?

D. Type of Wastewater

1. Process ☐ (39–41) %
2. Cooling ☐ (42–44) %
3. Sanitary ☐ (45–47) %

E. Outfall Operated

1. ☐ Full Year
2. ☐ Only Part of Year
   Initial date of discharge ________ Final date of discharge ________
3. ☐ Intermittent: ________ days

F. Word Description of Wastewater, Outfall Description and Outfall Location

---

A. 7,0 (1–8) Outfall Number ☐ (9–10) Monthly Operating Report Station Number (If Known—Otherwise leave blank) ☐ (11–16)

B. Water from this outfall is discharged to (Circle One Only)

1. Surface Waters ________ Name of receiving water
   Groundwaters (for storm sewers give where sewer discharges)
2. Lagoon or Seepage Pond With No Outlet
3. Spray Irrigation
4. Septic Tank – Tile Field
5. Deep Well Disposal
6. Surface of Ground
7. Other ________
8. Municipal Sanitary Sewer ________ Name of Municipality
(17)

C. Volume of Discharge

1. Avg. Daily Flow (MGD) ☐ (18–22)
2. Min. Daily Flow (MGD) ☐ (23–27)
3. Max. Daily Flow (MGD) ☐ (28–32)
4. Total Annual Flow (MGY) ☐ (33–38)

Was flow (Check One)
☐ measured or
☐ estimated?

D. Type of Wastewater

1. Process ☐ (39–41) %
2. Cooling ☐ (42–44) %
3. Sanitary ☐ (45–47) %

E. Outfall Operated

1. ☐ Full Year
2. ☐ Only Part of Year
   Initial date of discharge ________ Final date of discharge ________
3. ☐ Intermittent: ________ days

F. Word Description of Wastewater, Outfall Description and Outfall Location

---

FOR ADDITIONAL OUTFALLS, MAKE COPIES OF THIS FORM OR REQUEST ADDITIONAL FORMS.

INSTRUCTIONS FOR FORM III

Complete one section of this form for each material listed on page 13 which is used and/or discharged at this site. Note that usage and discharge are to be reported on a plant wide basis and that they are reported by ranges rather than by specifying exact pounds.

Note: We are interested in the critical materials contained in your product or used in your manufacturing process in any way, even if they are recovered or if they do not come in contact with water. Any critical materials used incidental to your manufacturing process must be reported if they may, at times, be discharged. If you are uncertain whether a particular material must be reported please call Jerry Fore (517) 373-2867 for assistance.

Copy the six-digit identifying code number appearing on the mailing label in the space provided (leave blank if number does not appear on label).

ITEM A — Note that each item on the critical materials list has a corresponding five-digit parameter number. Copy proper number in the space provided.

ITEM B — Indicate the name of the critical material being reported. (Must match number listed in A.)

ITEM C — Circle the number corresponding to the level of usage of critical material in question at this plant site during 1973.

ITEM D — Circle the number corresponding to the total level of discharge of the critical material in question in the wastewater of this plant during 1973.

ITEM E — List the numbers of the outfalls reported on Form II which discharge any amount of the critical material in question.

ITEM F — If publication of information you supplied in Item C would endanger the confidentiality of proprietary manufacturing processes, place an "X" in the box provided and that information will be held confidential.

Repeat sections as necessary to report all critical materials used and/or discharged. You may duplicate page 9 if more than three (3) parameters are reported, or additional forms can be obtained on request to:

Michigan Water Resources Commission
Act 293 Reports
P.O. Drawer M
Lansing, Michigan 48926

FORM III — CRITICAL MATERIALS REPORT

(See Instructions on Facing Page and the Example on Page 14)

Copy Code Number from Mailing Label

8 C
1 8

Item A: Parameter No.

9 13

Item B: Critical Material

Item C: Total lbs./yr. us used in plant:

Circle One
1 = <101 lbs.
2 = 101–1,000 lbs.
3 = 1,001–10,000 lbs.
4 = 10,0001 – 100,000 lbs.
5 = 100,001 – 1,000,000 lbs.
6 = < 1,000,000 lbs.
(14)

Item D: Total lbs./yr. discharged by plant

Circle One
0 = 0 lbs.
1 = <11 lbs.
2 = 11–100 lbs.
3 = 101–500 lbs.
4 = 501–1,000 lbs.
5 = 1,001–10,000 lbs.
6 = 10,001– 100,000 lbs.
7 = < 100,000 lbs.
(15)

Item E: Indicate the numbers of the outfalls reported on Form II which discharge this critical material:

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

Item F:

☐ (48) Check here if you want the information supplied in ITEM C to remain confidential as provided by Section 6b of Act 293 and Rule 235(4).

Copy Code Number from Mailing Label

8 C
1 8

Item A: Parameter No.

9 13

Item B: Critical Material

Item C: Total lbs./yr. us used in plant:

Circle One
1 = <101 lbs.
2 = 101–1,000 lbs.
3 = 1,001–10,000 lbs.
4 = 10,0001 – 100,000 lbs.
5 = 100,001 – 1,000,000 lbs.
6 = < 1,000,000 lbs.
(14)

Item D: Total lbs./yr. discharged by plant

Circle One
0 = 0 lbs.
1 = <11 lbs.
2 = 11–100 lbs.
3 = 101–500 lbs.
4 = 501–1,000 lbs.
5 = 1,001–10,000 lbs.
6 = 10,001– 100,000 lbs.
7 = < 100,000 lbs.
(15)

Item E: Indicate the numbers of the outfalls reported on Form II which discharge this critical material:

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

Item F:

☐ (48) Check here if you want the information supplied in ITEM C to remain confidential as provided by Section 6b of Act 293 and Rule 235(4).

Copy Code Number from Mailing Label

8 C
1 8

Item A: Parameter No.

9 13

Item B: Critical Material

Item C: Total lbs./yr. us used in plant:

Circle One
1 = <101 lbs.
2 = 101–1,000 lbs.
3 = 1,001–10,000 lbs.
4 = 10,0001 – 100,000 lbs.
5 = 100,001 – 1,000,000 lbs.
6 = < 1,000,000 lbs.
(14)

Item D: Total lbs./yr. discharged by plant

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4 = 501–1,000 lbs.
5 = 1,001–10,000 lbs.
6 = 10,001– 100,000 lbs.
7 = < 100,000 lbs.
(15)

Item E: Indicate the numbers of the outfalls reported on Form II which discharge this critical material:

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

Item F:

☐ (48) Check here if you want the information supplied in ITEM C to remain confidential as provided by Section 6b of Act 293 and Rule 235(4).

FOR ADDITIONAL CRITICAL MATERIALS MAKE COPIES OF THIS FORM OR REQUEST ADDITIONAL FORMS

INSTRUCTIONS FOR FORM IV-A

Note — A separate section is required for each type of waste.

Enter the facility Identification Number from the upper left corner of the mailing label.

ITEM A — Briefly describe the source and general characteristics of your hauled wastewater. Example: plating line wastes containing nickel and chrome plus acid bath overflow.

ITEM B — Enter volume that accumulates is one week.

ITEM C — Enter removal frequency

ITEM D — Enter brief description of storage container. Example: Vented rubber lined 2000 gallon steel tank.

ITEM E — Describe overflow and spill containment if any. Example: 3 foot earth dike 100 ft. in circumferance.

ITEM F — If applicable enter location.

ITEM G — Enter name and address.

INSTRUCTIONS FOR FORM IV-B

ITEM A—Copy the six digit code number from the upper left corner of the mailing label where indicated (leave blank if no code number appears on the mailing label). Next, enter your wastehauler license number in the box provided.

ITEM C — If you use more than two sites to dispose of waste you may attach an additional sheet of paper with their addresses.

Mailing Instructions: Fold the return mailing sheet (page 12) around all forms being returned. Be sure to write in your return address and apply sufficient postage. Staple and mail.

FORM IV-A — WASTEWATER REMOVED BY WASTEHAULERS

See Instructions on Facing Page

Copy Code Number
from Mailing Label

7 W ____________ 8

A. Describe the source and general nature of the liquid wastes you have hauled to another site. ____________

B. Aproximately what volume of this waste accumulates in one week? ____________ (9–13) gallons. ____ (14)

C. How frequently is it removed?
1☐daily 2☐weekly 3☐Monthly 4☐Other

D. Describe the storage container(s) you retain the wastes in ____________

E. Do you have provisions for containing accidental spills or overflows of this material? ☐Yes ☐No
If yes describe. ____________

F. If you dispose of this waste yourself, indicate the disposal site. ____________

G. If the waste is removed by someone other than yourself, give his name and address.
____

FORM IV-B — WASTEHAULERS REPORT FORM

(To be completed by haulers of liquid wastes only)

Copy Code Number
from Mailing Label

A. ____________ License Number ____________

B. Do you own your own waste disposal site?
☐Yes ☐No

C. Give the name of the owner and address of the site(s) where you dispose of the waste you haul.
____

D. On a separate sheet of paper prepare a list of names and addresses of commercial and industrial establishments where you picked up *any* wastewater during 1973.

YOU MAY MAKE ADDITIONAL COPIES OF THIS FORM OR REQUEST ADDITIONAL FORMS

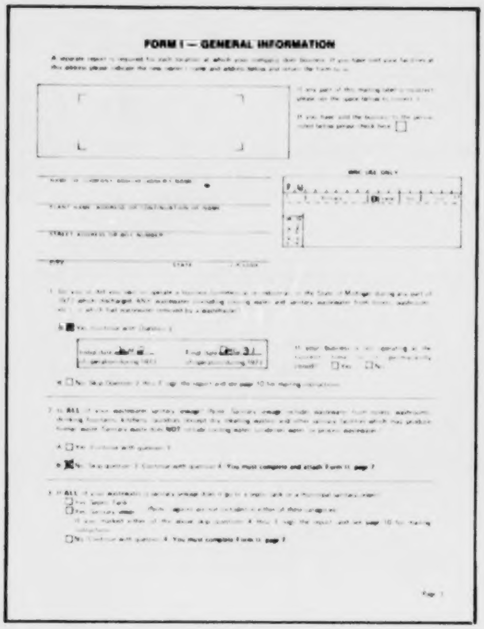
Michigan Water Resources Commission
CRITICAL MATERIALS REGISTER
Published October 1, 1973

I. INORGANIC MATERIALS	Parameter Number		Parameter Number
Antimony	95000	Mercury	95006
Arsenic	95001	Nickel	95007
Cadmium	95002	Selenium	95008
Chromium	95003	Silver	95009
Copper	95004	Sulfides	95015
Cyanides	95014	Thallium	95010
Lead	95005	Zinc	95012

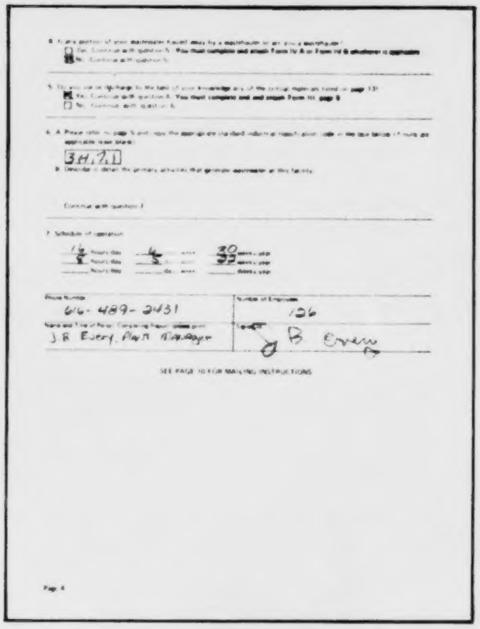
II. ORGANIC MATERIALS	Parameter Number		Parameter Number
Acridine	95017	Hexachlorobenzene (HCB)	95040
Acrolein	95018	Hexachlorobutadiene (HCBD)	95041
Aldrin	95067	Hydroquinone	95027
Ammonia	95089	Isoprene	95059
Amyl Acetate	95052	Lactonitrile	95028
Anilines (incl. Benzidines)	95043	Mesitylene	95060
Benzaldehyde	95021	Mesityl Oxide	95029
Benzene (Solvent)	95020	Napthol	95031
Benzyl Bromide	95022	Naphthenic Acid (Napthalene)	95032
Beta propriolactone	95019	Nitrobenzenes	95047
Butyl Alcohol	95053	Phenolic compounds	95048
Butyraldehydes	95044	Phenanthrene	95035
Butyric Acid	95054	Phthalates	95049
Carbon Disulfide	95055	Picramates (nitro-phenols)	95063
Chlorinated Benzene Compounds	95045	Polychlorinated biphenyls (PCB's)	95039
Crotonaldehyde	95056	Pyridines	95050
Cumene	95057	Quinoline	95036
DDT	95068	Quinone	95037
Dichloropropane	95023	Styrene	95061
Dieldrin	95069	Tordon	95065
Diethylbenzene	95024	Toxaphene	95072
Endrin	95070	Vinyl Toluene	95062
Ethyl Acrylate	95058	Xylenes	95064
Heptachlor	95071	2-4-5 T (and its formulations)	95066

EXAMPLES OF COMPLETED FORMS

Sample Problem: XVE Company is an electroplating firm located in Benton Harbor that has two wastewater outfalls. One discharges directly to the St. Joseph River and the other discharges to a seepage lagoon on their property. They have no wastewater hauled to another site. The following illustrations represent properly completed forms they might have returned.



FORM I — GENERAL INFORMATION

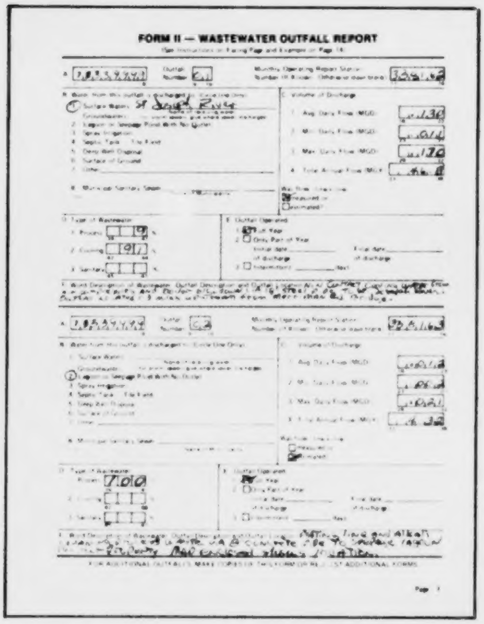


616- 489- 2431

126

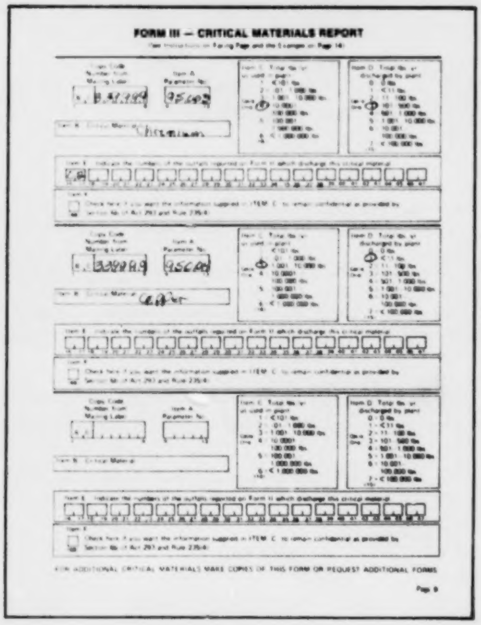
J.B. Every, Plant Manager

SEE PAGE 10 FOR MAILING INSTRUCTIONS



FORM II — WASTEWATER OUTFALL REPORT

St. Joseph River



FORM III — CRITICAL MATERIALS REPORT

A surveillance fee calculation based on this sample return can be found on page 16.

HOW SURVEILLANCE FEES ARE CALCULATED

Surveillance Fees are determined by applying the following formula.

SURVEILLANCE FEE = ADMINISTRATIVE FEE + (VOLUME BASE FEE x SURVEY FACTOR).

I. Administrative Fee = $50.00

II. Volume Base Fee is determined from the total of the average daily discharges of all outfalls (based on days when discharge occurs) as specified in Rule 237 - page 20.

This total volume excludes:

a. Discharges of waste to a sanitary sewer unless the discharge is likely to create injuries to the waters of the State as specified in Rule 240.

b. Discharges of sanitary waste to a septic tank-tile field system, unless the discharge requires surveillance by the Water Resources Commission.

III. The Survey Factor is determined for each outfall from the following subfactors which are weighted as indicated.

	Minimum Value	Maximum Value
a. Variability = $\frac{\text{Outfall Maximum Daily Flow}}{\text{Outfall Average Daily Flow}}$	1	5
b. Dilution = $\frac{\text{Outfall Average Daily Flow}}{\text{(0.1) (7-day, 10-yr. drought flow)}}$	0	10
c. Designated use of the receiving water[1]	4	20
d. Category I waste constituents, 2xN [2]	0	None
e. Category II waste constituents, 4xN [2]	0	None
f. Category III waste constituents, 8xN [2]	0	None
g. Critical material factor[3]	0	10
h. Latest rating of facility waste control[4]	0	15
i. Provisions for accident prevention	0	5
j. Number of outfalls, 2xN	0	None
k. Difficulty of waste survey	0	10
l. Intensity of area surveillance[5]	0	10

[1] Designated uses are as follows: Domestic water supply — 20 points; Coldwater fish intolerant species — 20 points; Recreation total body contact — 16 points; Warm water fish intolerant species — 12 points; Industrial water supply — 8 points; Commercial — 4 points.

[2] Categories of typical waste constituents are listed on page 17.

[3] Critical materials are listed on page 13.

[4] Ratings are as follows: Adequate waste control — 0 points; Inadequate waste control — 15 points.

[5] Areas designated for intensive surveillance are listed on page 18.

An *Outfall Survey Factor* for each outfall is determined by totaling the points assigned each subfactor and dividing the total by 10. No outfall survey factor will be less than 1.0.

An *Adjusted Survey Factor* for each outfall is determined by multiplying the outfall survey factor by the ratio of outfall Average Daily Flow/Total Plant Average Daily Flow.

A *Proportional Survey Factor* for the entire facility is determined by totaling the adjusted survey factors.

The surveillance fee is then calculated by multiplying the *Volume Base Fee* by the *Proportional Survey Factor* and adding the *Administrative Fee* of $50.

An adjustment factor from Rule 236(2) will be used to adjust the total of all fees to the legislative appropriation.

SURVEILLANCE FEE SAMPLE CALCULATION

This calculation is based on information obtained from the completed sample forms on page 14.

Outfall No. 1:	Non-contact cooling water to river	.130 MGD
Outfall No. 2:	Plating wastes to seepage/Lagoon	.012 MGD
	Total Average Daily Flow	.142 MGD

Surveillance fee = Administrative fee + (volume base fee x survey factor)

I Administrative Fee = $50.00

II Volume base fee = $80.00 for 142,000 gallons per day (from rules page 20)

III	Survey Factor			Outfall No. 1	Outfall No. 2
A.	Variability (Max. Flow/Avg. Daily Flow)			1.3	1.75
B.	Dilution (Avg. Daily Flow/Drought Flow x 0.1)			0.0	0.0
C.	Designated Use No. 1 = Intolerant Fish-Coldwater Species			12.0	
	No. 2 = Water Supply – Domestic				20.0
D.	Waste Constituents	No 1	No. 2	2.0	2.0
	Category I (N x 2)	Temp.	pH	2.0	2.0
	Category II (N x 4)	Oil	Sulfate	4.0	4.0
	Category III (N x 8)	---	Cr^{+6}, Cu	0.0	16.0
E.	Critical Materials Present			0.0	10.0
F.	Annual Rating			0.0	0.0
G.	Accident Prevention Provisions			0.0	0.0
H.	Number of Outfalls (N x 2)			4.0	4.0
I.	Survey Difficulty			4.0	1.0
J.	Extent of Area Surveillance			10.0	0.0
	TOTAL			37.3	58.75

Proportional Survey Factor = [3.73 x (.130/.142)] + [5.88 x (.012/.142)]
= (3.73 x .91) + (5.88 x .08)
= 3.39 + 0.47
= 3.86

Fee = $50. + (80 x 3.86)
= $359.00

Note: The fee may be adjusted upward or downward so that the sum of all fees equals the legislative appropriation.

TYPICAL WASTE CONSTITUENTS

Category I

01. Temperature
02. pH
03. Conductivity
04. Color
05. Turbidity

Category II

10. Alkalinity
11. Hardness
12. Acidity
13. DO
14 BOD
15. Ammonia
16. Nitrate
17. Soluble Ortho-PO4

-Major Ions-

18. Sodium
19. Potassium
20. Magnesium
21. Calcium
22. Chloride
23. Sulfate
24. Sulfide

-Solids-

25. Total Solids
26. Suspended Solids
27. Settleable Solids
28. Dissolved Solids
29. Susp. Volatile Solids

-Radioactivity-

30. Alpha Radiation
31. Beta Radiation
32. Gamma Radiation

-Minor Ions-

33. Bromide
34. Sulfite
35. Boron
36. Silicon
37. Nitrite
38. Oil and Grease
39. Organic Extractibles
40. Anionic Surfactants

Category III

50. Total Phosphorus
51. Kjeldahl Nitrogen
52. Phenol
53. Cyanide
54. TOC
55. COD

-Bacteria-

56. Total Coliform
57. Fecal Coliform
58. Fecal Streptococcus

-Heavy Metals-

59. Cr^{+6}
60. Cu
61. Zn
62. Cd
63. Pb
64. Hg
65. Se
66. Ag
67. Fe
68. Mn
69. Ni
70. Al
71. Sb
72. Ba
73. Be
74. Co
75. Mo
76. Tl
77. Sn
78. Ti
79. Cr^{+3}

80. Arsenic
81. Fluoride
82. Specific Radionuclides
83. Pesticides, PCB's, Chlorinated Hydrocarbons

Typical waste constituents are categorized by the relative expense of performing the analyses and sample collection requirements. Changes and additions may be made to this list.

STATE OF MICHIGAN

Sections 6b and 13 of Act 293, Public Acts of 1972

AN ACT to amend the title and sections 6, 7, 8 and 10 of Act No. 245 of the Public Acts of 1929, entitled as amended ......

Sec 6b. Every person, doing business within this state discharging waste water to the waters of the state or to any sewer system, which contains wastes in addition to sanitary sewage shall file annually reports on forms provided by the commission setting forth the nature of the enterprise, a list of materials used in and incidental to its manufacturing processes and including by-products and waste products, which appear on a register of critical materials as compiled by the commission with the advice of an advisory committee of environmental specialists designated by the commission and the estimated annual total number of gallons of waste water including but not limited to process and cooling water to be discharged to the waters of the state or to any sewer system. The information shall be used by the commission only for purposes of water pollution control. The commission shall provide proper and adequate facilities and procedures to safeguard the confidentiality of manufacturing proprietary processes except that confidentiality shall not extend to waste products discharged to the waters of the state. Operations of a business or industry which violate this section may be enjoined on petition of the water resources commission to a court of proper jurisdiction. The commission shall promulgate rules as it deems necessary to effectuate the administration of this section, including where necessary to meet special circumstances, reporting more frequently than annually.

Sec 13. (a) In order to provide for increased surveillance, investigation, monitoring and other activities necessary to provide greater protection of the quality of waters of this state, an annual surveillance fee is payable by a person, company, corporation, but not a municipality, discharging water borne waste directly or indirectly into any waters of the state from any manufacturing facility; or from any other commercial establishment which may generate a discharge inconsistent with the protection of waters of the state. The fees shall be for the cost of surveillance of industrial and commercial discharges and receiving waters. The cost of necessary surveillance of municipal discharges shall not be financed from revenues so derived but may be provided otherwise by law. In any year, the total surveillance fees assessed on discharges shall not exceed the total amount appropriated to the commission and other appropriate state agencies for the surveillance, monitoring and related activities necessary to adequately assess the impact of commercial and industrial wastewater discharges on waters of the state.

(b) On or before February 1 of each year the commission shall inform each such discharger and the state treasurer of the annual surveillance fee due, from each plant location or major manufacturing component and commercial enterprise as provided by rules.

(c) On or before March 1 of each year a discharger shall pay to the state treasurer the amount of surveillance fee due who shall deposit it in the general fund of the state. The treasurer shall report the total annual amount collected to the governor and the legislature on or before April 15 of each year.

(d) The annual surveillance fee shall be based on an administrative fee of $50.00 and an additional fee set by the commission. The additional fee shall be determined on a graduated basis using a formula developed by rules of the commission. The formula shall include the volume and nature of discharge, number of discharge locations, variability of flow volume, stream characteristics, laboratory tests required, area surveillance, difficulty of survey setup, history of compliance and provisions for compliance and such other factors as the commission deems appropriate to establish the total annual surveillance fee. The maximum annual fee assessed shall not exceed $9,000.00 per manufacturing location. Discharges into a municipal sewerage system shall be assessed only the $50.00 administrative fee unless such discharge after municipal treatment is or may become injurious to the waters of the state as set forth in section 6 in which event the assessment will be based upon the same considerations as if the discharge after treatment were being discharged by the manufacturing facility or commercial establishment directly into the waters of the state. The commission shall promulgate such rules as are necessary to implement this section.

Note: Copies of Act No. 245, P.A. 1929 are available from the Michigan Water Resources Commission upon request.

DEPARTMENT OF NATURAL RESOUCES
WATER RESOURCES COMMISSION
GENERAL RULES

Filed with Secretary of State
These rules take effect 15 days after filing with the Secretary of State

(By authority conferred on the water resources commission by sections 2, 6b and 13 of Act No. 245 of the Public Acts of 1929, as amended, being sections 323.2, 323.6b and 323.13 of the Michigan Compiled Laws.)

Part 6. Wastewater Reporting and Surveillance Fees

R 323.1231 Definitions A to C.

Rule 231. (1) "Act" means Act No. 245 of the Public acts of 1929, as amended, being sections 323.1 to 323.13 of the Compiled Laws of 1948, and the act which these rules implement.

(2) "Advisory committee" means the group of environmental specialists created under section 6b of the act.

(3) "Commission" means the water resources commission of the department of natural resources.

(4) "Critical materials" means organic and inorganic substances, elements or compounds which are listed in a register compiled by the commission.

R 323.1232 Definitions H to W.

Rule 232. (1) "Hazardous materials" means oil and salt including but not limited to petroleum, gasoline, fuel oil, grease, sludge, oil refuse, oil mixed with waste, sodium chloride and calcium chloride, in solid or liquid form.

(2) "Legislative appropriations conversion factor" means a factor which is used to adjust surveillance fees upward or downward, so that the total of annual surveillance fees will equal the Legislative appropriation designated for industrial and commercial surveillance activities for a fiscal year.

(3) "Person" means an individual, partnership, association, corporation or any commercial or industrial entity doing business in the state which discharges wastewaters but does not include a municipal corporation, or a governmental unit or agency thereof.

(4) "Sewer system" means enclosed pipes and conduits which conduct wastewater to a wastewater treatment facility and are owned or operated by county, metropolitan district, city, village or other public body created by or pursuant to state law.

(5) "Wastewater" means both liquid waste discharges resulting from industrial or commercial processes, including cooling and condensing waters, and sanitary sewage from industrial or commercial facilities.

(6) "Waters of the state" means surface and underground waters including lakes, rivers, streams, open drainage conduits and all other watercourses and waters within the state and also the Great Lakes bordering thereon, except non-potable underground waters utilized incidental to gas and oil well operations that are subject to permit and surveillance under Act No. 61 of the Public Acts of 1939, as amended, being Sections 319.1 to 319.27 of the Michigan Compiled Laws.

R 323.1233 Register of critical materials.

Rule 233. A register of critical materials as initially compiled by the commission shall be published during the month of October 1971 by 1 of the methods prescribed by section 42 of Act No. 306 of the Public Acts of 1969, being section 24.242 of the Michigan Compiled Laws. Copies shall be made available to the public upon request. The register may be revised annually by the commission upon receipt of advice from the advisory committee. A revision shall be published in the same manner as the initial register and shall become effective only on the next annual anniversary date thereof.

R323.1234 Wastewater reports, contents and forms.

Rule 234. (1) A report shall be filed under section 6b and section 13 of the act by every person doing business within this state who either discharges wastewater to the waters of the state, or who discharges wastewater in addition to sanitary sewage to a sewer system. The report shall be on forms provided by the commission and shall set forth in detail:

(a) Name, location and nature of the enterprise or operation.

(b) Normal schedule of hours and days of operation of the enterprise.

(c) A fair estimate of the annual total number of gallons of wastewater which are to be discharged to the waters of the state or to any sewer system.

(d) Name of the watercourse or waters into which the wastewaters are discharged.

(e) A description of each point at which wastewaters enter the waters of the state, a sewer system or are disposed of by percolation underground.

(f) A list of those materials used in and incidental to operation of the business or manufacturing enterprise, which appear on the register of critical materials.

(g) A list of those critical materials listed on the register, including the annual amounts thereof, which are to be disposed of as waste products or by-products to the waters of the state, or any sewer system.

(h) Other information as needed for implementation of sections 6b and 13 of the act.

(2) Not later than October 1 of each year of the year for which reports are due, the commission shall mail a standardized reporting form and a register of critical materials to each person affected by section 6b and these rules.

R 323.1235 Wastewater reports, filing and confidentiality.

Rule 235. (1) A wastewater report shall be filed annually with the commission not later than December 15 of each year. The reporting period is the calendar year in which the report is filed.

(2) An interim report shall be filed promptly when:

(a) The use of critical materials not previously reported is commenced during any year, or

(b) The amounts of critical materials used or discharged increase sufficiently to move the level of usage into a higher category on the annual critical materials report.

(3) A person doing business in more than 1 location shall file a separate report for each location.

(4) The information on the critical materials listed in an annual report as being used in and incidental to manufacturing operations shall be available to the public unless the release thereof would, in the opinion of the commission after petition by the person filing the report, fail to protect the confidentiality of proprietary manufacturing processes.

R 323.1236 Surveillance fees calculation.

Rule 236. (1) The annual surveillance fee shall be calculated by the following formula: annual fee = $50.00 administrative fee + (graduated volume base fee x survey factor).

(2) A legislative appropriations conversion factor may be applied by the commission to all annual surveillance fees for the fiscal year to adjust the total amount of fees to be received to the legislative appropriation designated for industrial and commercial surveillance activities for that fiscal year.

(3) The maximum fee for each industrial or commercial location shall be $9,000.00.

R 323.1237 Volume base fees.

Rule 237. The volume base fee shall be on a graduated basis as follows:

Average Wastewater Discharge Volume Based on Days When Discharge Occurs (Million Gallons Per Day)			Volume Base Fee
	less than	.002	$ 10.00
.002	but less than	.003	15.00
.003	but less than	.005	20.00
.005	but less than	.010	25.00
.010	but less than	.025	30.00
.025	but less than	.050	40.00
.050	but less than	.075	50.00
.075	but less than	.1	65.00
.1	but less than	.2	80.00
.2	but less than	.3	100.00
.3	but less than	.5	125.00
.5	but less than	1.0	175.00
1.0	but less than	2.5	275.00
2.5	but less than	5.0	400.00
5.0	but less than	10.0	600.00
10.0	but less than	25.0	800.00
25.0	but less than	100.0	1000.00
100.0		and over	1200.00

R 323.1238 Survey factor.

Rule 238. (1) Determination of the survey factor used in calculation of a surveillance fee shall be based upon the following subfactors:

(a) The flow variability of waste effluent flow.

(b) The volume of the waste effluent flow related to flow conditions in the receiving waters.

(c) The waste effluent as related to the critical nature of the receiving water as indicated by its protected designated uses for public water supplies, cold water intolerant fish, total body contact, warm water intolerant fish, industrial water use and commercial water use.

(d) The waste constituents to be monitored. This factor shall include the number of constituents to be monitored in addition to the relative costs of collection and analysis.

(e) The frequency of surveillance required as related to the presence of critical materials.

(f) The frequency of surveillance as related to the recent history of facility performance.

(g) The facility's provisions for the handling and containment of hazardous and critical materials.

(h) The number of locations at which wastewater is discharged from the facility.

(i) The difficulty of survey setup including but not limited to the physical and geographical problems encountered in surveillance.

(j) The amount of surveillance to be conducted in the area where the wastewater is discharged.

(2) The survey factor shall not be less than 1.0.

R 323.1239 Contested fees.

Rule 239. A person who contests a fee established by the commission shall be afforded opportunity for a hearing thereon in accordance with Act No. 306 of the Public Acts of 1969, as amended, being sections 24.201 to 24.315 of the Compiled Laws of 1948, and the commission rules of procedure.

R 323.1240 Notices of fees due.

Rule 240. On or before February 1 of each year, the commission shall notify each person owing a surveillance fee, of the amount thereof which is due. The notice shall set forth the administrative fee and the calculations used in establishing the total fee due. If an assessment is added to the administrative fee for wastewater discharges to a sewer system, the notice shall specify the substances in the waste which are likely to create injuries to the waters of the state after the treatment provided by the municipality or other government unit.

R 323.1241 Exemptions from surveillance fees.

Rule 241. A person whose wastewater discharges are less than 2,000 gallons per day if made to the ground, or are less than 10,000 gallons per day if made to a sewer system, or consist only of sanitary sewage discharged to a sewer system, is exempt from payment of the annual surveillance fee on such discharges unless, in the opinion of the commission, they require surveillance by the state.

R323.1242

Rule 242. (1) A person who fails to file timely an annual or interim report, falsifies, or fails to provide any information required by Rule 234, after being notified by certified mail thereof by the commission, shall have 10 days, after the date of mailing thereof, in which to file the report or corrected or supplemental information. Upon failure to comply, the commission may notify the person of the alleged violation and set a date for a hearing thereon to show cause why operation of the business or industry should not be enjoined. After the hearing, the commission shall determine if a violation exists and the action to be taken thereon.

(2) Rule 3 with reference to appearances and Rule 6 with reference to the designation of a hearings officer, of the General Rules of the commission, apply to a hearing held under this rule.

(3) A person who does not pay the surveillance fee in full on or before March 1 of each year, commencing March 1, 1972, is subject to penalties specified in section 10 of the act.

Appendix D

Oregon's Bottle Law

BEVERAGE CONTAINERS

Note: ORS 459.810 to 459.890 and subsections (5) and (6) of 459.992 become operative on October 1, 1972.

459.810 **Definitions for ORS 459.810 to 459.890.** As used in ORS 459.810 to 459.890 and subsections (5) and (6) of ORS 459.992, unless the context requires otherwise:

(1) "Beverage" means beer or other malt beverages and mineral waters, soda water and similar carbonated soft drinks in liquid form and intended for human consumption.

(2) "Beverage container" means the individual, separate, sealed glass, metal or plastic bottle, can, jar or carton containing a beverage.

(3) "Commission" means the Oregon Liquor Control Commission.

(4) "Consumer" means every person who purchases a beverage in a beverage container for use or consumption.

(5) "Dealer" means every person in this state who engages in the sale of beverages in beverage containers to a consumer, or means a redemption center certified under ORS 459.880.

(6) "Distributor" means every person who engages in the sale of beverages in beverage containers to a dealer in this state including any manufacturer who engages in such sales.

(7) "In this state" means within the exterior limits of the State of Oregon and includes all territory within these limits owned by or ceded to the United States of America.

(8) "Manufacturer" means every person bottling, canning or otherwise filling beverage containers for sale to distributors or dealers.

(9) "Place of business of a dealer" means the location at which a dealer sells or offers for sale beverages in beverage containers to consumers.

(10) "Use or consumption" includes the exercise of any right or power over a beverage incident to the ownership thereof, other than the sale or the keeping or retention of a beverage for the purposes of sale.
[1971 c.745 §1]

459.820 **Refund value required.** (1) Except as provided in subsection (2) of this section, every beverage container sold or offered for sale in this state shall have a refund value of not less than five cents.

(2) Every beverage container certified as provided in ORS 459.860, sold or offered for sale in this state, shall have a refund value of not less than two cents.
[1971 c.745 §2]

459.830 **Practices required of dealers and distributors.** Except as provided in ORS 459.840:

(1) A dealer shall not refuse to accept from a consumer any empty beverage containers of the kind, size and brand sold by the dealer, or refuse to pay to the consumer the refund value of a beverage container as established by ORS 459.820.

(2) A distributor shall not refuse to accept from a dealer any empty beverage containers of the kind, size and brand sold by the distributor, or refuse to pay the dealer the refund value of a beverage container as established by ORS 459.820.
[1971 c.745 §3]

459.840 **When dealer or distributor authorized to refuse to accept or pay refund in certain cases.** (1) A dealer may refuse to accept from a consumer, and a distributor may refuse to accept from a dealer any empty beverage container which does not state thereon a refund value as established by ORS 459.820.

(2) A dealer may refuse to accept and to pay the refund value of empty beverage containers if the place of business of the dealer and the kind and brand of empty beverage containers are included in an order of the commission approving a redemption center under ORS 459.880.
[1971 c.745 §4]

459.850 **Indication of refund value required; exception; certain metal containers prohibited.** (1) Every beverage container sold or offered for sale in this state by a dealer shall clearly indicate by embossing or by a stamp, or by a label or other method securely affixed to the beverage container, the refund value of the container.

(2) Subsection (1) of this section shall not apply to glass beverage containers designed for beverages having a brand name permanently marked thereon which, on October 1, 1972, had a refund value of not less than five cents.

(3) No person shall sell or offer for sale at retail in this state any metal beverage container so designed and constructed that a part

of the container is detachable in opening the container without the aid of a can opener.
[1971 c.745 §5]

459.860 Certification of containers as reusable by more than one manufacturer. (1) To promote the use in this state of reusable beverage containers of uniform design, and to facilitate the return of containers to manufacturers for reuse as a beverage container, the commission shall certify beverage containers which satisfy the requirements of this section.

(2) A beverage container shall be certified if:

(a) It is reusable as a beverage container by more than one manufacturer in the ordinary course of business; and

(b) More than one manufacturer will in the ordinary course of business accept the beverage container for reuse as a beverage container and pay the refund value of the container.

(3) A beverage container shall not be certified under this section if by reason of its shape or design, or by reason of words or symbols permanently inscribed thereon, whether by engraving, embossing, painting or other permanent method, it is reusable as a beverage container in the ordinary course of business only by a manufacturer of a beverage sold under a specific brand name.
[1971 c.745 §6]

459.870 Decision upon certification applications; review and withdrawal of certifications granted. (1) Unless an application for certification under ORS 459.860 is denied by the commission within 60 days after the filing of the application, the beverage container shall be deemed certified.

(2) The commission may review at any time certification of a beverage container. If after such review, with written notice and hearing afforded to the person who filed the application for certification under ORS 459.860, the commission determines the container is no longer qualified for certification, it shall withdraw certification.

(3) Withdrawal of certification shall be effective not less than 30 days after written notice to the person who filed the application for certification under ORS 459.860 and to the manufacturers referred to in subsection (2) of ORS 459.860.
[1971 c.745 §7]

459.880 Redemption centers. (1) To facilitate the return of empty beverage containers and to serve dealers of beverages, any person may establish a redemption center, subject to the approval of the Oregon Liquor Control Commission, at which consumers may return empty beverage containers and receive payment of the refund value of such beverage containers.

(2) Application for approval of a redemption center shall be filed with the commission. The application shall state the name and address of the person responsible for the establishment and operation of the redemption center, the kind and brand names of the beverage containers which will be accepted at the redemption center and the names and addresses of the dealers to be served by the redemption center. The application shall include such additional information as the commission may require.

(3) The commission shall approve a redemption center if it finds the redemption center will provide a convenient service to consumers for the return of empty beverage containers. The order of the commission approving a redemption center shall state the dealers to be served by the redemption center and the kind and brand names of empty beverage containers which the redemption center must accept. The order may contain such other provisions to insure the redemption center will provide a convenient service to the public as the commission may determine.

(4) The commission may review at any time approval of a redemption center. After written notice to the person responsible for the establishment and operation of the redemption center, and to the dealers served by the redemption center, the commission may, after hearing, withdraw approval of a redemption center if the commission finds there has not been compliance with its order approving the redemption center, or if the redemption center no longer provides a convenient service to the public.
[1971 c.745 §8]

459.890 Certification and withdrawal procedures. The procedures for certification or withdrawal provided for in ORS 459.860 to 459.880 shall be in accordance with ORS chapter 183.
[1971 c.745 §9]

PENALTIES

459.990 [1967 c.428 §16; 1969 c.593 §48; subsection (2) enacted as 1969 c.509 §6; repealed by 1971 c.648 §33]

459.992 Penalties. (1) The following are punishable, upon conviction, by a fine of not more than $1,000 or by imprisonment in the county jail for not more than one year, or both:

(a) Violation of regulations or ordinances adopted under ORS 459.005 to 459.105 and 459.205 to 459.285.

(b) Violation of ORS 459.205.

(c) Violation of an ordinance enacted under ORS 459.120.

(2) Each day a violation referred to by subsection (1) of this section continues constitutes a separate offense. Such separate offenses may be joined in one indictment or complaint or information in several counts.

(3) Penalties provided in this section are in addition to and not in lieu of any other remedy specified in ORS 459.005 to 459.105, 459.120 to 459.150 or 459.205 to 459.285.

(4) Violation of ORS 459.510 or of any rule, regulation or order entered or adopted pursuant to ORS 453.635, 459.410 to 459.690, 634.250 and 634.350 is punishable, upon conviction, by a fine of not more than $3,000 or by imprisonment in the county jail for not more than one year, or by both. Each day of violation shall be deemed a separate offense.

(5) Any person who violates ORS 459.820, 459.830 or 459.850 shall be punished, upon conviction, as for a misdemeanor.

(6) In addition to the penalty prescribed by subsection (5) of this section, the commission or the State Department of Agriculture may revoke or suspend the license of any person who wilfully violates ORS 459.820, 459.830 or 459.850, who is required by ORS chapter 471 or 635, respectively, to have a license.
[Subsections (1), (2) and (3) enacted as 1971 c.648 §20; subsection (4) enacted as 1971 c.699 §20; subsections (5) and (6) enacted as 1971 c.745 §10]

Note: Subsections (5) and (6) of ORS 459.992 become operative October 1, 1972.

CERTIFICATE OF LEGISLATIVE COUNSEL

Pursuant to ORS 173.170, I, Robert W. Lundy, Legislative Counsel, do hereby certify that I have compared each section printed in this chapter with the original section in the enrolled bill, and that the sections in this chapter are correct copies of the enrolled sections, with the exception of the changes in form permitted by ORS 173.160 and other changes specifically authorized by law.

Done at Salem, Oregon,
on December 1, 1971.

Robert W. Lundy
Legislative Counsel

Appendix E

AMERICAN CAN COMPANY v. OREGON LIQUOR CONTROL COMMISSION, No. 75567 (Ct. App. Ore. Dec. 17, 1973)

The Oregon Court of Appeals upholds the constitutionality of the state's "bottle bill," finding that it neither places an undue burden on interstate commerce nor violates the due process rights of bottle and beverage manufacturers. The legislation is a permissible exercise of the state's police power, representing a decision by the legislature that the benefits to the state in reduced litter and solid waste disposal problems outweigh the economic harm to the bottle and beverage industries. The Federal Solid Waste Disposal Act of 1970 expressly disclaimed federal pre-emption of the field of solid waste disposal. The law is not, as plaintiffs contend, rendered invalid by the possibility that alternative means, less likely to affect interstate commerce, might be employed, such as the "Clean Up America" campaign and the improved litter collecting machines which plaintiffs predict will be developed. The statute is not a protectionist attempt to discriminate against out-of-state industry, nor is the right to sell non-returnable bottles so fundamental as to require a stepped-up standard of review under the Equal Protection Clause. For the opinion of the court below, see 2 ELR 20643. See also Comment, *Oregon's "Bottle Bill" Survives Challenges, Produces Results*, 3 ELR 10112 (July 1973).

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Tanzer, J.

This is an appeal from a circuit court decree declaring that Oregon's so-called bottle bill, ORS 459.810-459.890, is valid and denying plaintiffs' and intervenors' application for injunctive relief against the enforcement of the law. Plaintiffs are (a) manufacturers of cans who supply the beer and soft drink industries, (b) brewers who brew and package beer in California and Arizona which is shipped to and sold in Oregon, (c) out-of-state soft drink canners who can soft drinks for Oregon bottlers for resale here, (d) soft drink companies who market their products in Oregon, and (e) the Oregon Soft Drink Association. Intervenors are five glass container manufacturers who supply the beer and soft drink industries. (The term "plaintiffs" will be used in this opinion to include intervenors unless it is specified otherwise.) The defendants include (as parties responsible for administering the statute) the Oregon Liquor Control Commission, its commissioners and administrator, the State Department of Agriculture and its director, and the State of Oregon.

The bottle bill, enacted by the Oregon legislature in 1971, became effective on October 1, 1972. The statute's principal provisions are as follows:

1. Every retailer of the covered beverages (beer or carbonated beverages) in Oregon is required to "accept from a consumer any empty beverage containers of the kind, common size and brand sold by the dealer" and to pay the consumer the statutory "refund value" of the container. ORS 459.830 (1). The "refund value" is required to be indicated on every beverage container "sold or offered for sale in this state by the dealer." ORS 459.850.

2. A distributor must similarly accept empty containers from a dealer for the "refund value." ORS 459.830 (2). A distributor is defined as a person, including a manufacturer, "who engages in the sale of beverages in beverage containers to a dealer in this state." ORS 459.810 (6).

3. Metal beverage containers, a part of which is wholly detachable in opening without a can opener ("pull top" cans), may not be sold at retail in Oregon. ORS 459.850 (3).

4. A reduced "refund value" may be administratively set for a beverage container which is acceptable to more than one manufacturer for re-use in the ordinary course of business. ORS 459.860. This reduced "refund value" has been set in the amount of two cents for such "certified" containers. ORS 459.820 (2).

The primary legislative purpose of the bottle bill is to cause bottlers of carbonated soft drinks and brewers to package their products for distribution in Oregon in returnable, multiple-use deposit bottles toward the goals of reducing litter and solid waste in Oregon and reducing the injuries to people and animals due to discarded "pull tops."

As bases for attacking the validity of the statute, plaintiffs invoke the Equal Protection[1] and Due Process[2] Clauses of the Fourteenth Amendment to the United States Constitution, and the Commerce Clause, art. 1, §8, clause 3 of the United States Constitution.[3] In addition, plaintiffs cite various provisions of the Oregon Constitution.[4]

One of plaintiffs' main objectives at trial was to show that the bottle bill would have an effect not only upon manufacturers of bottles and cans, but also upon an entire distribution chain including brewers, soft drink bottlers and canners, beer wholesalers, retailers and, ultimately, consumers. The evidence in this regard demonstrated that the consumption of malt beverages and soft drinks had increased greatly in the United States in recent years, and that a large part of this increase could be attributed to the use of convenient "one-way" packages, including both cans and nonreturnable bottles. Plaintiffs assert that non-returnable containers are essential to the existence of national and regional beer markets, and that non-returnable containers are also essential to the continued existence of soft drink enterprises. The non-returnable containers were shown to have provided economies in the packaging and distribution of soft drinks and beer by eliminating the cost of shipping the containers both ways, thus causing an increase in feasible shipping distances and enlarging the market each manufacturer could cover. Among the effects of the bottle bill, plaintiffs' witnesses predicted, would be a substantial reduction in Oregon sales of soft drinks packaged outside Oregon, and impairment of the ability of the distant brewers to compete in the Oregon market. The bottle bill would necessitate substantial changes in the structure of the industries involved in the manufacturing and merchandising of beer and soft drinks.

Substantial portions of plaintiffs' evidence was directed to the extent of the bottle bill's economic impact upon the specific individual industries represented by the plaintiffs. Summarized, this evidence (which was uncontradicted) predicted the following impact upon the various industries:

> 1. Spokesmen of the three plaintiff soft drink canners testified that each of their companies would be hurt by the bottle bill because the statute would substantially eliminate soft drink cans from the Oregon market. One witness, the president of an Oregon canning company, predicted that the statute would put his company out of business. Representatives of the two out-of-state companies, while not predicting complete ruin, predicted that they would suffer substantial economic loss.
>
> 2. Representatives of the plaintiff metal container companies testified that beer and soft drink containers represented a substantial percentage of their total metal container production (in the case of one firm, the percentage was 100 percent), and that the Oregon market was a significant outlet for their products. Some of the companies would be forced to eliminate portions of their operations because of the statute, it was predicted, and each of the representatives stated the opinion that nationwide enactment of laws similar to the bottle bill would severely damage his business. In addition, the can companies' spokesmen testified that the bottle bill's ban on pull tops would hurt that aspect of their businesses too.
>
> 3. It was predicted that, because of the changes in the structure of the industries which would be mandated by the bottle bill, the Oregon sales of the plaintiff brewers would be reduced and that the price of beer would have to rise when the statute went into effect. Similarly, because of the changes which would be necessary in the soft drink industry, it was predicted that the size and growth of the Oregon soft drink market would be substantially reduced.
>
> 4. Representatives of intervenor glass companies (which are capable of manufacturing both returnable and non-returnable bottles) testified that they will lose a substantial volume of sales because the bottle bill encourages multiple use of each bottle. Each time a bottle is refilled, plaintiffs will have lost a potential sale of a new bottle. The evidence indicated that the extent of loss due to the Oregon statute would be significant, and if such statutes should be passed in other states, the effect would be multiplied.

Finally, evidence was introduced by plaintiffs which was designed to (a) minimize the predicted effectiveness of the bottle bill toward the statute's purposes of elimination of litter and reduction of glass and metal refuse in the solid waste stream; (b) contend that a merchandising system utilizing solely returnable containers is unworkable, and that consumers would not support it; and (c) point out alternative means of attacking these problems. In this regard, plaintiffs presented evidence that the containers regulated by the bottle bill constitute a relatively small percentage of litter and solid waste, and expert testimony from a behavioral scientist who testified that the provision of refund values on beverage containers will not substantially modify littering behavior. In addition, plaintiffs presented evidence of the activities of various civic organizations designed to alleviate the litter and solid waste problems, and the establishment in various places around the nation of resource recovery systems. It was contended that these were viable alternatives to the solution inherent in the bottle bill.

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[1] " nor [shall any State] deny to any person within its jurisdiction the equal protection of the laws."

[2] " nor shall any State deprive any person of life, liberty, or property, without due process of law "

[3] "The Congress shall have Power To regulate Commerce with foreign Nations, and among the several States "

[4] Plaintiffs and intervenors rely upon a number of provisions of the Oregon Constitution in support of their position:

> Art. 1, §10, guarantees every person "remedy by due course of law for injury done him in his person, property, or reputation."
>
> Art. 1, §18, provides that "[p]rivate property shall not be taken for public use without just compensation "
>
> Art. 1, §20, forbids any law "granting to any citizen or class of citizens privileges, or immunities, which, upon the same terms, shall not equally belong to all citizens."

COMMERCE CLAUSE

Plaintiffs' most substantial challenge to the bottle bill is under the Commerce Clause of the United States Constitution.

The development of the one-way container provided a great technological opportunity for the beverage industry to turn logistical advantages into economic advantages. By obviating the expensive necessity of reshipping empty bottles back to the plant for refilling, the new containers enabled manufacturers to produce in a few centralized plants to serve more distant markets. The industry organized its manufacturing and distribution systems to capitalize maximally on the new technology.

The Oregon legislature was persuaded that the economic benefit to the beverage industry brought with it deleterious consequences to the environment and additional cost to the public. The aggravation of the problems of litter in public places and solid waste disposal and the attendant economic and esthetic burden to the public outweighed the narrower economic benefit to the industry. Thus the legislature enacted the bottle bill over the articulate opposition of the industries represented by the plaintiffs.

As with every change of circumstance in the market place, there are gainers and there are losers. Just as there were gainers and losers, with plaintiffs apparently among the gainers, when the industry adapted to the development of non-returnable containers, there will be new gainers and losers as they adapt to the ban. The economic losses complained of by plaintiffs in this case are essentially the consequences of readjustment of the beverage manufacturing and distribution systems to the older technology in order to compete in the Oregon market.

The purpose of the Commerce Clause, following the intolerable experience of the economic Balkanization of America which existed in the colonial period and under the Articles of Confederacy, was to assure to the commercial enterprises in every state substantial equality of access to a free national market. It was not meant to usurp the police power of the states which was reserved under the Tenth Amendment. Therefore, although most exercises of the police power affect interstate commerce to some degree, not every such exercise is invalid under the Commerce Clause.

Plaintiffs acknowledge the authority of the state to act, but assert that the state exercise of its police power must yield to federal authority over interstate commerce because, they claim, the impact on interstate commerce in this case outweighs the putative benefit to the state and because alternative methods exist to achieve the state goal with a less deleterious impact on interstate commerce. They urge us to assume the role of a "super legislature," as they put it, and perform for ourselves the weighing process already performed by the Legislative Assembly, relying largely upon *Pike v. Bruce Church, Inc.*, 397 US 137, 142, 90 S.Ct. 844, 25 L.Ed.2d 174 (1970), which states:

> Although the criteria for determining the validity of state statutes affecting interstate commerce have been variously stated, the general rule that emerges can be phrased as follows: Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. *Huron Cement Co. v. Detroit*, 362 US 440, 443. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities. . . .

The language of the United States Supreme Court is not always consistent in analyzing the application of the Commerce Clause to varying facts and it is difficult to rationalize it into one harmonious jurisprudential whole. On their facts, however, the cases cluster around certain basic concepts and the treatment accorded to state action is consistent within each grouping. The cases consistently hold that the Commerce Clause bars state police action only where:

> (1) federal action has pre-empted regulation of the activity;
>
> (2) the state action impedes the free physical flow of commerce from one state to another; or
>
> (3) protectionist state action, even though under the guise of police power, discriminates against interstate commerce.

In this case there is no claim of federal preemption, so we are concerned only with the latter two concepts, interstate transportation and economic protectionism. No party cited and we were unable to find any case striking down state action under the Commerce Clause which did not come within one of these two categories.

The language of *Pike v. Bruce Church, Inc., supra*, does not mechanically compel a weighing process in every case. The language is instructive in appropriate cases rather than mandatory in all cases. The blight of the landscape, and the appropriation of lands for solid waste disposal, and the injury to children's feet caused by pull tops discarded in the sands of our ocean shores are concerns not divisible by the same units of measurement as is economic loss to elements of the beverage industry and we are unable to weigh them, one against the other. The United States Supreme Court recognized the inappropriateness of a weighing process in cases of non-comparable benefit and injury when it chastised the District Court for having done so in *Firemen v. Chicago, R.I. & P.R. Co.*, 393 US 129, 89 S.Ct. 323, 21 L.Ed.2d 289 (1968):

> We think it plain that in striking down the full-crew laws on this [weighing] basis, the District Court indulged in a legislative judgment wholly beyond its limited authority to review state legislation under the Commerce Clause . . . ." 393 US at 136
>
> . . . The District Court's responsibility for making 'findings of fact' certainly does not authorize it to resolve conflicts in the evidence against the legislature's conclusion or even to reject the legislative judgment on the basis that without convincing statistics in the record to support it, the legislative viewpoint constitutes nothing more than what the District Court in this case said was 'pure speculation.' " 393 US at 138-39.

The court has weighed comparables such as the relative effectiveness of safety measures in transportation cases, *see*, e.g., *Bibb v. Navajo Freight Lines*, 359 US 520, 79 S.Ct. 962, 3 L.Ed.2d 1003 (1959), and *Southern Pacific Co. v. Arizona*, 325 US 761, 65 S.Ct. 1515, 89 L.Ed. 1915 (1945), or health inspection cases, *Dean Milk Co. v. Madison*, 340 US 349, 71 S.Ct. 295, 95 L.Ed. 329 (1951), *Minnesota v. Barber*, 136 US 313, 10 S.Ct. 862, 34 L.Ed. 455 (1890), or economic benefit and injury in economic discrimination cases such as *Pike v. Bruce Church, Inc., supra*, but it does not weigh non-comparables such as cost to the railroads against arms and legs of the workers in *Firemen v. Chicago, R.I. & P.R. Co., supra*, because the result would be wholly subjective. That process becomes political and is constitutionally assigned to the legislative branch as the determiner of policy.

Where the putative state benefit and the impact upon interstate commerce are grossly disproportionate, the disparity is apparent without going through the motions of a judicial weighing process. The question then becomes one of equal protection and we deal with that below.

The bottle bill is unquestionably a legitimate legislative exercise of the police power. The breadth of the police power was noted by the United States Supreme Court in *Berman v. Parker*, 348 US 26, 75 S.Ct. 98, 99 L.Ed. 27 (1954):

> . . . The values [public welfare] represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled. . . .

Specifically upholding the authority of the states to enact environmental legislation affecting interstate commerce, the court held in *Huron Cement Co. v. Detroit*, 362 US 440, 442, 80 S.Ct. 813, 4 L.Ed.2d 852 (1960):

> . . . Legislation designed to free from pollution the very air that people breathe clearly falls within the exercise

> of even the most traditional concept of what is compendiously known as the police power. In the exercise of that power the states and their instrumentalities may act, in many cases of interstate commerce and maritime activities, concurrently with the federal government. [Citations omitted]"

The United States Supreme Court has also made clear that it will not only recognize the authority of the state to exercise the police power, but also its right to do so in such manner as it deems most appropriate to local conditions, free from the homogenizing constraints of federal dictation. In *Breard v. Alexandria*, 341 US 622, 640-41, 71 S.Ct. 920, 95 L.Ed. 1233 (1951), the court stated:

> . . .'The police power of a state extends beyond health, morals and safety, and comprehends the duty, within constitutional limitations, to protect the well-being and tranquility of a community.'
>
> When there is a reasonable basis for legislation to protect the social, as distinguished from the economic, welfare of a community, it is not for this Court because of the Commerce Clause to deny the exercise locally of the sovereign power of Louisiana. Changing living conditions or variations in the experiences or habits of different communities may well call for different legislative regulations as to methods and manners of doing business. Powers of municipalities are subject to control by the states. Their judgment of local needs is made from a more intimate knowledge of local conditions than that of any other legislative body. . . (footnotes omitted).

The Oregon legislature is thus constitutionally authorized to enact laws which address the economic, esthetic and environmental consequences of the problems of litter in public places and solid waste disposal which suit the particular conditions of Oregon even though it may, in doing so, affect interstate commerce.

The enactment of the bottle bill is clearly a legislative act in harmony with federal law. Congress has directed that the states take primary responsibility for action in this field. By enacting the Federal Solid Waste Disposal Act, 42 USC §3251 (1970), Congress specifically recognized that the proliferation of new packages for consumer products has severely taxed our disposal resources and blighted our landscapes. It disclaimed federal preemption and assigned to local government the task of coping with the problem with limited federal fiscal assistance:

> (a) The Congress finds—
>
> (1) that the continuing technological progress and improvement in methods of manufacture, packaging, and marketing of consumer products has resulted in an ever-mounting increase, and in a change in the characteristics, of the mass of material discarded by the purchaser of such products;
>
> . . . . .
>
> (4) that inefficient and improper methods of disposal of solid wastes result in scenic blights, create serious hazards to the public health, including pollution of air and water resources, accident hazards, and increase in rodent and insect vectors of disease, have an adverse effect on land values, create public nuisances, otherwise interfere with community life and development;
>
> . . . . .
>
> (6) that while the collection and disposal of solid wastes should continue to be primarily the function of State, regional, and local agencies, the problems of waste disposal as set forth above have become a matter national in scope and concern and necessitate Federal action through financial and technical assistance and leadership in the development, demonstration, and application of new and improved methods and processes to reduce the amount of waste and unsalvageable materials and to provide for proper and economical solid-waste disposal practices.

Congress has recently reaffirmed that allocation of state and federal responsibility by enactment of the Environmental Quality Improvement Act, 42 USC §4371 (1970), which provides:

> (b) (1) The Congress declares that there is a national policy for the environment which provides for the enhancement of environmental quality. This policy is evidenced by statutes heretofore enacted relating to the prevention, abatement, and control of environmental pollution, water and land resources, transportation, and economic and regional development.
>
> (2) The primary responsibility for implementing this policy rests with State and local governments.
>
> . . . . .

See also, the Federal Water Pollution Act, 33 USC §1151 (1970). It is significant that the United States Supreme Court relied upon this legislation in validating the intrusion upon interstate commerce caused by the Detroit Smoke Abatement Act in *Huron Cement Co. v. Detroit, supra*.

While it is clear that the Oregon legislature was authorized to act in this area, plaintiffs assert that the means incorporated in the bottle bill are not effective to accomplish its intended purpose and that alternative means are available which will have a lesser impact upon interstate commerce. Particularly, they offered evidence to show: (1) that the deposit system is inadequate to motivate the consuming public to return containers;[5] (2) that mechanical means are being developed for improved collection of highway litter; and (3) that public education, such as the "Pitch In To Clean Up America" campaign, is a desirable means of dealing with container litter.

Selection of a reasonable means to accomplish a state purpose is clearly a legislative, not a judicial, function, to which the admonitive language from *Firemen v. Chicago R.I. & P.R. Co., supra*, 393 US at 136 and 138-39, quoted above is clearly applicable. In particular, the courts may not invalidate legislation upon the speculation that machines may be developed or because additional and complementary means of accomplishing the same goal may also exist. The legislature may look to its imagination rather than to traditional methods such as those which plaintiffs suggest, to develop suitable means of dealing with state problems, even though their methods may be unique. Each state is a laboratory for innovation and experimentation in a healthy federal system. What fails may be abandoned and what succeeds may be emulated by other states. The bottle bill is now unique; it may later be regarded as seminal.

We conclude, therefore, that the bottle bill was properly enacted within the police power of the state of Oregon and that it is imaginatively, but reasonably, calculated to cope with problems of legitimate state concern.

Plaintiffs next assert that "Oregon's 'Bottle Bill' would not merely 'impede substantially the free flow of commerce' [*Southern Pacific Co. v. Arizona*, 325 US 761 (1945) at 767] but in many cases totally destroy and eliminate it . . . ." The law surrounding the concept of impediments to the flow of interstate commerce relates consistently to the actual instrumentalities of interstate commerce, i.e., railroad, truck, air and other of the actual means of transportation of goods across state lines, not to the goods being transported.

The fact that the flow may be impeded is not in itself enough to invalidate the state law. As the United States Supreme Court stated in *Southern Pacific Co. v. Arizona, supra*, 325 US at 770:

> . . . There has thus been left to the states wide scope for the regulation of matters of local state concern, even though it in some measure affects the commerce, provided it does not materially restrict the free flow of commerce across state lines, or interfere with it in matters with respect to which uniformity of regulation is of predominant national concern.

If the burden upon interstate commerce is one of actual impediment upon the free physical flow, then the burden will be viewed with great judicial dubiety. Thus, train length is not subject to state regulation because national uniformity is "practically indispensable to the operation of an efficient and economical national railway system," *Southern Pacific Co. v. Arizona, supra,* 325 US at 771, and a state cannot require a unique type of mud flap on trucks in interstate commerce, *Bibb v. Navajo Freight Lines,* 359 US 520, 79 S.Ct. 962, 3 L.Ed.2d 1003 (1959). Even the means of interstate transportation, however, are subject to state police regulation under limited circumstances. For example, a full-crew law to promote safety was authorized in *Firemen v. Chicago R.I. & P.R. Co., supra,* even though a train may have to stop at state borders to take on or let off crewmen. Similarly, the application of the municipal smoke abatement code to federally inspected and licensed steam vessels engaged in interstate shipping was upheld in *Huron Cement Co. v. Detroit,* 362 US 440, 80 S.Ct. 813, 4 L.Ed.2d 852 (1960).

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[5] *But see* Olympia Brewing Co. v. O.L.C.C., ___ , ___ Or App ___ , ___ P 2d ___ (decided this day), in which the evidence showed a remarkably high return rate of 85 percent on "Tall 12" beer bottles.

If the very means of all interstate commerce are subject to the states' reasonable exercise of police power in the interest of safety or environmental protection, then surely the containers of one class of product in that flow are conferred no immunity from regulation as they cross the state line.

Plaintiffs argue persuasively that this case involves more than the transportation of bottles and cans, that it involves an interstate system of distribution for a national industry. Accepting that, the distribution system is still subject to the reasonable exercise of state police power. The United States Supreme Court in *Breard v. Alexandria,* 341 US 622, 71 S.Ct. 920, 95 L.Ed. 1233 (1951), upheld an ordinance designed to protect privacy which prohibited door-to-door sales over an argument that the means of distribution of an interstate industry would be rendered illegal in one city. The court held to the contrary:

> We recognize the importance to publishers of our many periodicals of the house-to-house method of selling by solicitation. As a matter of constitutional law, however, they in their business operations are in no different position so far as the Commerce Clause is concerned than the sellers of other wares. Appellant, as their representative or in his own right as a door-to-door canvasser, is no more free to violate local regulations to protect privacy than are other solicitors. As we said above, the usual methods of seeking business are left open by the ordinance. That such methods do not produce as much business as house-to-house canvassing is, constitutionally, immaterial and a matter for adjustment at the local level in the absence of federal legislation. . . .
>
> (footnote omitted.) 341 US at 637-38.

Similarly, we are unable to say that the economic burden upon the plaintiffs is sufficient to displace the authority of the State of Oregon to legislate regarding environmental problems.

In summary, the "free flow of commerce" cases are of no help to plaintiffs because they protect only the physical means of interstate transportation from unauthorized intrusion. The protection of the goods in that flow is found in the next cluster of cases, those that bar economic discrimination against interstate commerce.

Plaintiffs seek the benefit of the latter cases by asserting that the bottle bill burdens interstate commerce by economic discrimination against out-of-state interests. If that were indeed the design of the legislature,[6] then the burden would likely be intolerable, despite a claim of lofty purpose under the police power. The United States Supreme Court has invalidated milk quota preferences for instate milk, *Baldwin v. G.A.F. Seelig,* 294 US 511, 55 S.Ct. 497, 79 L.Ed. 1032 (1935), *Polar Co. v. Andrews,* 375 US 361, 84 S.Ct. 378, 11 L.Ed. 389 (1964), preferential inspection laws which inhibit non-state distributors, *Minnesota v. Barber,* 136 US 313, 10 S.Ct. 862, 34 L.Ed. 455 (1890), *Dean Milk Co. v. Madison,* 340 US 349, 71 S.Ct. 295, 95 L.Ed. 329 (1951), and, in a recent case relied on heavily by plaintiffs, a requirement that Arizona cantaloupes be packed in Arizona, *Pike v. Bruce Church, Inc.,* 397 US 137, 90 S.Ct. 844, 25 L.Ed.2d 174 (1970), but even there the court carefully limited its weighing process to economic considerations and specifically distinguished safety or consumer protection legislation. The purpose of the legislation in each case was protectionist, despite the invocation of the police power.

On the other hand, legislation which has negative economic consequences for non-state business is not necessarily discriminatory against interstate commerce. In particular, the *Pike* case notes and distinguishes *Pacific States Co. v. White,* 296 US 176, 56 S.Ct. 159, 80 L.Ed. 138, 101 ALR 853 (1935), in which an Oregon regulation of containers for berries packed in Oregon was upheld despite the diminution of the ability of California box makers to compete with Oregon interests. It also noted the California raisin marketing system which was upheld in *Parker v. Brown,* 317 US 341, 63 S.Ct. 307, 87 L.Ed. 315 (1943), although the express design of that law was to give the California raisin industry an economic tactical advantage.

Lower courts have recently upheld the state's authority to ban products altogether from the state's market for legitimate state police purposes as against Commerce Clause claims. A New York law prohibiting sale of products made from the skins of endangered species, none of which are indigenous to New York, was upheld in *Palladio, Inc. v. Diamond,* 321 F.Supp. 630 (SDNY 1970), aff'd 440 F.2d 1319 (2nd Cir. 1971), *cert. denied,* 404 US 983, 92 S.Ct. 4461, 30 L.Ed.2d 367 (1971), and labeling restrictions on detergents and a ban on the sale of phosphate detergents was upheld in *Soap and Detergent Association v. Clark,* 330 F.Supp. 1218 (SD Fla. 1971), although not in *Soap and Detergent Association v. City of Chicago,* 357 F.Supp. 44 (ND Ill. 1973).

On a claim of economic discrimination and relevant also to the equal protection claim below, it is appropriate to look to the nature of the economic burden upon interstate commerce and the legislative motivation in creating that burden. A gross disparity would tend to evidence police power coloration to an act of economic protectionism. Plaintiffs offered evidence, much of it necessarily speculative, as to severe economic effects upon their elements of the beverage industry. Their evidence that the public would purchase and consume substantially less beer and carbonated beverages by virtue of the bottle bill is not persuasive. We are not dealing with a large loss of sales across the industry, but rather with the ability of various elements of the industry to obtain a share of the consumers' dollars. As we noted above, the introduction of any new circumstance affecting competition will cause economic winners and economic losers throughout the industry as it readjusts to that new circumstance. The evidence is that plaintiffs expect to be among the losers, unless, of course, they are able to make marketing adjustments.

Economic loss restricted to certain elements of the beverage industry must be viewed in relation to the broader loss to the general public of the state of Oregon which the legislature sought, by enactment of the bottle bill, to avoid. The availability of land and revenues for solid waste disposal, the cost of litter collection on our highways and in our public parks, the depletion of mineral and energy resources, the injuries to humans and animals caused by discarded pull tops, and the esthetic blight on our landscape, are all economic, safety and esthetic burdens of great consequence which must be borne by every member of the public. The legislature attached higher significance to the cost to the public than they did to the cost to the beverage industry and we have no cause to disturb that legislative determination.

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[6] Plaintiffs base their claim of intentional economic protectionism on a statement of Attorney General Lee Johnson in his testimony before a legislative committee that the bottle bill would result in more jobs for Oregonians because Oregon producers would have a competitive advantage. They quote the statement out of context. The Attorney General was not asserting competitive advantage as a reason for the legislation. Rather, he was merely answering the anticipated argument from the bill's opponents that the legislation would cost Oregon business sales and jobs. The paragraph of his testimony, with the portion quoted by plaintiffs emphasized, reads as follows:

> "We recognize that this bill will face heavy sledding in the Oregon Legislature. In the State of Washington a citizens' group tried to pass a similar bill by way of referendum. Powerful vested interests, particularly large national bottle and can manufacturers, mounted a well-financed campaign and defeated the measure. These same vested interests, most of whom are not located in the State of Oregon, will be mounting the same campaign here. They will contend that the bill will increase the price of soft drinks and beer, but I believe that this is simply not true. Any price increase should be offset by the refund. They will also contend that the bill will destroy Oregon businesses and lead to a loss of jobs. This likewise is not true. Many small bottle distributors in Oregon who are now being forced out of business will be able to survive and provide new jobs. *Many Oregon concerns will indeed be given a competitive advantage over outside firms who have inadequate distribution facilities to handle recycled bottles.*"

The bottle bill is not discriminatory against interstate commerce and is not intended to operate to give Oregon industry a competitive advantage against outside firms. The ban on pull tops and the deposit-and-return provisions apply equally to all distributors and manufacturers whether Oregon-based or from out of state. According to plaintiffs' testimony, the economic burden of the industry's adjustment to the change will be shared by Oregon businesses as well as non-Oregon businesses. Indeed, the chairman of the board of Oregon's only brewery testified that it would be hurt by compliance more than its out-of-state competitors. A canning firm from Eugene, Oregon would be among the canners suffering the greatest economic loss. In other words, the evidence is clear that the cost of adjustment to the new exigencies of selling beverages in Oregon will be spread throughout the beverage industry, its suppliers, manufacturers and distributors without regard to whether they are Oregon-based firms.

Plaintiffs assert particularly that the reduction in the refund value of standardized containers from five cents to two cents each operates to discriminate against out-of-state manufacturers. They argue that they cannot produce the container for two cents and that an Oregon producer enjoys a competitive advantage by being able to buy the out-of-state producer's bottles at the lower cost and without the additional expense of shipping them to a distant plant. In effect, they claim, distant shippers must sell bottles to Oregon firms at below cost.

We do not agree that the device of a reduced refund for standardized containers is discriminatory against out-of-state interests. The purpose of the provision is clearly to provide an incentive to make bottles as fungible as possible in order to ease the burden upon the distribution system by eliminating the need for sorting, facilitating industry-wide redemption and obviating the cost of reshipment. The firm which attempts to compete at a great distance from its market suffers a natural disadvantage, whatever container is allowed. Just as use of the nonreturnable container reduced the inherent disadvantage of a distant competitor, the refund provisions tend to partially restore the former degree of disadvantage. The disadvantage does not relate to the state borders. A bottler in southern Oregon, for example, would be at a disadvantage competing to recapture used bottles from Vancouver, Washington. The competitive disadvantage is one of distance, not one of state boundaries. *See Olympia Brewing Co. v. O.L.C.C.*, ___ Adv Sh ___, ___ Or App ___, ___ P.2d ___, decided today. While the state is under an obligation not to discriminate against out-of-state business interests, it is under no obligation to maintain equal levels of competitive advantage for all producers regardless of their distance from the market. We hold that the refund provisions of the bottle bill neither operate nor are designed to operate as devices of protectionism for Oregon interests or discrimination against non-Oregon interests.

Because the bottle bill is a legitimate exercise of the police power, consistent with federal policy legislation, which does not impede the flow of interstate commerce and which does not discriminate against non-Oregon interests, we hold that it is valid legislation under the Commerce Clause. We turn now to plaintiffs' other constitutional challenges.

DUE PROCESS

Plaintiffs argue that the bottle bill is violative of the Due Process Clause of the Fourteenth Amendment and assert that this court must weigh the legislative purpose against the degree of oppression to individuals. We made such a general comparison above in the section dealing with cases of purported economic discrimination under the Commerce Clause and we saw no cause to disturb the legislative judgment. The United States Supreme Court has not struck down economic legislation on the basis of substantive due process since the Depression. In one of the more recent attempts to invoke the doctrine, *Firemen v. Chicago R.I. & P.R. Co., supra*, 393 US at 143, the court dismissed the challenge without discussion. *See* also, *Ferguson v. Skrupa*, 372 US 726, 83 S.Ct. 1028, 10 L.Ed.2d 93, 95 ALR2d 1347 (1963).

EQUAL PROTECTION

Plaintiffs argue that the bottle bill is violative of the Equal Protection Clause as applied to them. They argue that they have an affirmative right to engage in interstate commerce analogous to the rights of freedom from discrimination based upon race, religion or sex and the right to engage in travel. They claim that we must examine any intrusion upon that right with the same "strict scrutiny" as we would examine those personal rights. They argue that the bottle bill must fail because its goals do not justify its burdens upon the plaintiffs, and because it will not tend to accomplish its goals in that it applies only to beer and soft drink containers and not to other containers which are equally deleterious to the environment.

We do not accept the plaintiffs' attempted analogy with cases involving invidious discrimination based upon race or religion or based on fundamental affirmative individual rights such as the right to travel or the right to free speech. The Commerce Clause does not purport to grant a personal right. Rather, it is an allocation of power between the levels of government in the federal system. Plaintiffs are entitled to equal protection from arbitrary state interference into the conduct of their business by arbitrary classification.

The United States Supreme Court stated the general principle in *McGowan v. Maryland*, 366 US 420, 425-26, 81 S.Ct. 1101, 6 L.Ed.2d 393 (1961):

> . . . [T]he Fourteenth Amendment permits the States a wide scope of discretion in enacting laws which affect some groups of citizens differently than others. The constitutional safeguard is offended only if the classification rests on grounds wholly irrelevant to the achievement of the State's objective. State legislatures are presumed to have acted within their constitutional power despite the fact that, in practice, their laws result in some inequality . . . .

We find that the bottle bill in all of its aspects is reasonably calculated to achieve legitimate state objectives under the police power as discussed above. The ban on pull tops is reasonably calculated to diminish the injuries to people who step on them and to animals who eat them at pasture as well as to reduce the litter which they create. The placing of a monetary value on beverage containers and its attendant encouragement for people to return them instead of discarding them by the roadside or in other public places or throwing them into the garbage is reasonably calculated to diminish the amount of solid waste and the amount of litter with which the state is required to deal. *See Anchor Hocking v. Barber*, 118 Vt. 206, 105 A2d 271 (1954).

The fact that other containers may also create litter and solid waste does not invalidate the legislature's intent to deal with this species of solid waste and litter. As the United States Supreme Court said in *Railway Express v. New York*, 336 US 106, 110, 69 S.Ct. 463, 93 L.Ed 533 (1949), "It is no requirement of equal protection that all evils of the same genus be eradicated or none at all." The court further held in *Williamson v. Lee Optical Co.*, 348 US 483, 489, 75 S.Ct. 461, 99 L.Ed 563 (1955):

> . . . Evils in the same field may be of different dimensions and proportions, requiring different remedies. Or so the legislature may think. Or the reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind. The legislature may select one phase of one field and apply a remedy there, neglecting the others . . . . (citations omitted.)

Plaintiffs' right to equal protection has not been abridged.

THE OREGON CONSTITUTION

Plaintiffs made claims under three sections of the Oregon Constitution.

First, they invoke article I, section 10, ". . . Every man shall have remedy by due course of law for injury done him in his person, property or reputation." Section 10 concerns the administration of justice. The quoted words were historically directed against denying a remedy for a legal injury to the named private interests recognized under the law of torts or property. *Cf. Holden v. Pioneer*

Broadcasting Co. et al. 228 Or 405, 365 P.2d 845 (1961), *dismissed,* 370 US 157 (1962). It is not to be considered the equivalent of the Due Process Clause of the Fourteenth Amendment. *See* Linde, *Without Due Process,* 49 Or L.Rev. 125, 136-38 (1970).

Plaintiffs also invoke article I, section 18, as it provides that "private property shall not be taken for public use . . . without just compensation." This section was designed to provide compensation and money damages where the government takes property for governmental use. *See Cereghino et al. v. State Highway Com.,* 230 Or 439, 370 P.2d 694 (1962); *Thornburg v. Port of Portland,* 233 Or 178, 376 P.2d 100 (1962). It does not authorize the invalidation of state law merely because of negative economic consequences to a given industry.

Plaintiffs next cite article I, section 20, which states that "[n]o law shall be passed granting to any citizen or class of citizens, privileges, or immunities, which, upon the same terms, shall not equally belong to all citizens." Section 20 is not the equivalent of the Equal Protection Clause, the latter being adopted several years after the adoption of section 20. It was essentially a bar to the legislature against singling out specific individuals or interests for preferential treatment on an ad hominem basis. There is no such claim in this case.

The Oregon constitutional provisions are not appropriate to the challenges raised by plaintiffs in this case.

THE TWENTY-FIRST AMENDMENT

The Attorney General claims that the bottle bill is constitutional as it applies to beer containers under the Twenty-First Amendment.[7] We doubt that the authority of the state to control the sale and use of liquor extends to regulation of the containers in interstate commerce for the purpose of abating litter and solid waste problems. Because we have sustained the bottle bill on other grounds and because even a ruling favorable to the defendants under the Twenty-First Amendment would not be dispositive of the bottle bill as it applies to the soft drink industry, we need not and do not reach the issues under the Twenty-First Amendment.

Plaintiffs' and intervenors' constitutional challenges having failed, we hold the bottle bill to be a valid exercise of Oregon's police power. In doing so, we acknowledge having had the benefit of an able analysis by the trial court.

Affirmed.

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[7] "Section 1. The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

"Sec. 2. The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

"Sec. 3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by conventions in the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress."

Appendix F

Title 10, Vermont Statutes Annotated

Chapter 53. Litter Levy; Aid to Municipalities for Sanitary Landfills, Recycling Centers

SECTION

1521. Definitions.
1522. Imposition of litter levy on nonreturnable containers.
1523. Deposit in lieu of levy.
1524. Allocation.
1525. Penalty.

HISTORY

Tables of renumbered sections. For tables showing disposition of renumbered sections of this chapter, see tables set out at end of Title 12.

§ 1521. Definitions

For the purpose of this chapter:

(1) "Beverage" means beer or other malt beverages and mineral waters, soda water and similar soft drinks in liquid form and intended for human consumption, whether or not carbonated, but does not include uncarbonated water, soups, fluid milk products, unadulterated, natural, reconstituted or frozen fruit, vegetable or meat juices, or liquids intended for medicinal purposes only. The term "beverage" also includes spirituous liquors and vinous beverages as defined in section 2 of Title 7.

(2) "Biodegradable material" means material which is capable of being broken down by bacteria into basic elements.

(3) "Container" means the individual, separate, bottle, can, jar or carton composed of glass, metal, paper, plastic or any combination of those materials containing a consumer product. This definition shall not include containers made of biodegradable material.

(4) "Distributor" means every person who engages in the sale of consumer products in containers to a dealer in this state including any manufacturer who engages in such sales.

(5) "Manufacturer" means every person bottling, canning, packing or otherwise filling containers for sale to distributors or dealers.

(6) "Recycling" means the process of sorting, cleansing, treating and reconstituting waste and other discarded materials for the purpose of reusing the materials in the same or altered form. —Added 1971, No. 252 (Adj. Sess.), § 1, eff. July 1, 1972.

HISTORY

Revision note. This section was formerly set out as § 1171.

§ 1522. Imposition of litter levy on nonreturnable containers

(a) A levy is hereby exacted on all beverage containers sold in the state intended for resale, use or consumption in this state at the rate of 4 mills on each beverage container sold, which levy shall expire on July 1, 1973, with respect to all beverage containers except containers for spirituous liquors and vinous beverages.

(b) The levy provided in this section shall be paid by every manufacturer or distributor to the commissioner of taxes. Whenever a retailer, group of retailers or retail chain contracts for, receives consignment of, or in any other manner acquires beverages in beverage containers outside of the state for sale, use or consumption in the state, the levy exacted pursuant to this section shall be paid to the commissioner of taxes by such retailer, retail group or chain. The commissioner of taxes shall adopt and publish all forms and regulations necessary for the purposes of this chapter.—Added 1971, No. 252 (Adj. Sess.), § 1, eff. July 1, 1972.

HISTORY

Revision note. This section was formerly set out as § 1172.

§ 1523. Deposit in lieu of levy

(a) In lieu of payment of the litter levy provided in section 1522 of this title, any manufacturer or distributor of beverage containers may, and on and after July 1, 1973 shall require a deposit of not less than five cents to be paid by the consumer on each beverage container sold at the retail level and refunded to him upon return of the empty beverage container. Whenever a retailer, group of retailers or retail chain contracts for, receives consignment of, or in any other manner acquires beverages in beverage containers outside of the state for sale, use or consumption in the state, the deposit requirements in this section shall be applicable to such retailer, retail group or chain in the same manner as to manufacturers or distributors of beverage containers.

(b) If a manufacturer or distributor elects or is compelled to require a deposit pursuant to subsection (a) of this section, that manufacturer or distributor shall:

(1) Clearly label each beverage container manufactured, sold, distributed or intended for distribution in the state with a statement indicating the amount of the deposit, and the name of this state, and

(2) Provide either that all retailers selling such beverage containers and collecting and refunding deposits on such beverage containers be reimbursed for those efforts by the manufacturer or distributor in an amount directly proportional to the quantity of beverage containers redeemed as determined by the secretary of environmental conservation; or that the manufacturer or distributor establish, operate and maintain a sufficient number of facilities for the collection and redemption of beverage containers sold or distributed by him in the state, at least one in each town, at locations determined by the secretary of environmental conservation with the approval of the legislative body of the town in which the facility is to be located. The secretary of environmental conservation shall have authority to promulgate rules and regulations necessary to implement this section.

(c) The deposit required by this section in lieu of payment of the litter levy shall not apply to beverage containers of spirituous liquors which by federal law cannot be reused.—Added 1971, No. 252 (Adj. Sess.), § 1, eff. July 1, 1972.

History

Revision note. This section was formerly set out as § 1173.

Reference to section "1172" of this title was changed to "1522" to conform reference to renumbering of such section.

§ 1524. Allocation

Of the funds collected pursuant to section 1522 of this title:

(1) The first $1,000,000.00 or 50 per cent, whichever is greater, shall be distributed each year to the towns on a per capita basis for use by them for operation and maintenance of sanitary landfills required pursuant to law; and

(2) Any excess shall be allocated each year to the secretary of the agency of environmental conservation to establish and operate solid waste recycling centers pursuant to section 2205 of Title 24.—Added 1971, No. 252 (Adj. Sess.), § 1, eff. July 1, 1972.

History

Revision note. This section was formerly set out as § 1174.

Reference to section "1172" of this title was changed to "1522" to conform reference to renumbering of such section.

Distribution of levy. 1971, No. R-101 (Adj. Sess.), provided: "That the distribution of said litter levy to the towns shall be made as soon as practicable after the close of each quarter during the fiscal year 1973 so as to permit use of said funds by the towns for the purposes intended."

§ 1525. Penalty

Any person who violates the provision of this chapter shall be fined not more than $1,000.00 for each violation.—Added 1971, No. 252 (Adj. Sess.), § 1, eff. July 1, 1972.

History

Revision note. This section was formerly set out as § 1175.

Appendix G

Vermont Environmental Protection
REGULATION
CHAPTER 10

DEPOSIT FOR BEVERAGE CONTAINERS

10-1523.1 SCOPE. For the purpose of this regulation, beer and other malt beverages, mineral waters, soda water and similar soft drinks shall be subject to the requirement that a deposit of not less than five cents shall be paid by the consumer on each beverage container sold at the retail level and refunded to him upon return of the beverage container.

A container is defined as a vessel composed of metal or glass, or of any substitute materials, capable of containing a beverage at the time of sale to the consumer.

The deposit shall apply to all containers in which the above products are sold at retail, unless otherwise provided herein.

10-1523.2 LABELLING. (a) Each container, subject to this regulation, shall contain a label specifying, in letters of not less than 12 point, either of the following messages:

VERMONT - ______¢ - DEPOSIT

or

VERMONT - ______¢ - REFUND

with the amount of the deposit or refund inserted therein. Each label shall be so designed and emplaced so that the message thereon and unencumbered background shall occupy an area of not less than three quarters of a square inch. The label may be applied to the container either by molding thereon, by embossing or imprinting directly thereon, or by printing upon the regular product label applied thereto. Except in the case of application by molding, the label and wording shall be of clearly contrasting color from that of the container or of the background color of any other label placed upon the container. The label or message may be emplaced upon any readily accessible surface of the container in the case of molding, embossing or imprinting, or of the regular product label in the case of printing, and shall not be covered or obscured in the least by any other application to the container. The placement of the label or message may be by horizontal, vertical, diagonal or other manner so long as all other requirements of this subsection are complied with. Except where a waiver has been granted under Subsection B of this section, in the case of containers of mineral waters, soda water or similar soft drinks which do not have a regular product label, a separate label bearing the name of the product, manufacturer, bottler or distributor, and in conformance with the other requirements of this subsection shall be firmly affixed thereto. A sample copy of any applied separate label, required under this subsection, shall be filed with the Secretary of Environmental Conservation.

(b) In the case of existing and legally refillable containers utilized by manufacturers or distributors of mineral waters, soda water or similar soft drinks, which have a national or regional distribution throughout the New England or northeastern states, and to which the application of a separate label is impractical because of container design or lack of available space, the labelling may be waived for a period of one year, upon application by the manufacturer or distributor to the Secretary of Environmental Conservation, and upon his decision to grant such a waiver. The decision of the Secretary shall be final, and the period of waiver may be extended if in his opinion it is in the interest of the State of Vermont to do so.

(c) The labelling requirements of this regulation shall not apply to beer and other malt beverages contained in kegs, half kegs, quarter-kegs, or pony-kegs provided that a deposit on the container is charged to the consumer for the use thereof, and refunded to him upon return to the seller.

10-1523.3 STOCK ON HAND AS OF JUNE 30, 1973

(a) In the case of containers present within the State of Vermont on June 30, 1973, and/or upon which the litter levy required by Title 10, Vermont Statutes Annotated, Section 1522 (Formerly Section 1172) has been paid or is due and payable to the State of Vermont, the requirement for the payment of a deposit or labelling shall not become due until September 1, 1973.

Each distributor, having on hand a supply of containers as specified in this sub-section, shall file a statement with the Secretary of Environmental Conservation consisting of an inventory of the containers on hand or in stock as of June 30, 1973, and his estimate as to the date upon which the containers shall have been delivered to those retailers with which he does business, and his inventory depleted.

(b) This regulation shall not affect, curtail or infringe upon the right of the purchaser or consumer to pay the appropriate deposit and receive a receipt thereof to enable him to return the container to the place of his purchase for redemption and return of his deposit.

10-1523.4 REDEMPTION OF CONTAINER; RETURN OF DEPOSIT

Any purchaser of a container, upon which he has paid a deposit, shall be entitled to redeem his deposit upon return of a container to a retail store, or to a redemption center established in accordance with 10 V.S.A. Section

1523(b)(2), or in conformance with the provisions of Sections 10-1523.5 and 10-1523.6 of these regulations, provided:

(a) The retailer and/or distributor shall be required to redeem only those containers of a brand, type and size as are sold by him at any time subsequent to June 30, 1973, and, in the case of those containers which the retailer and/or distributor ceases to sell, he shall be required to redeem them for a period of sixty days following the cessation of sales.

(b) The retailer and/or distributor may refuse to accept containers which are not legally labelled, or subject to a waiver of labelling requirements in accordance with Section 10-1523.2 of the regulations.

(c) The retailer and/or distributor may refuse to accept containers which are in an unsanitary or unclean condition or contain objects or materials which are foreign to the normal contents of the container. No retailer or distributor shall refuse to redeem a container if the container has been rinsed or washed clean of any residual contents or foreign materials.

10-1523.5 REDEMPTION CENTERS

Any manufacturer or distributor may establish a sufficient number of facilities for the collection and redemption of beverage containers sold or distributed by him in the State, at least one in each town, at locations approved by the legislative body of the town in which the facility is to be located, and the Secretary of Environmental Conservation. Prior to the operation of such facilities, the manufacturer or distributor shall present to the Secretary his proposals for the location of such facilities and evidence showing the concurrence and approval of the legislative body of each town affected.

10-1523.6 PILOT REDEMPTION CENTERS

Any manufacturer or distributor, alone, or in conjunction with a retailer or retailers, or any combination of them, may petition the Secretary of Environmental Conservation for authority to establish, maintain, operate and manage a system of pilot redemption centers for the redemption of containers and the return of consumer deposits, for the purpose of obtaining information relating to economic operation of such centers and the effectiveness of enabling consumers to redeem containers at centralized locations.

In considering whether to approve a pilot project the Secretary shall first determine that sufficient number of such centers will be established, and have the approval of the legislative body of the town wherein they will be located.

Any proposal for the establishment of pilot redemption centers shall make adequate provision for the establishment of such centers in order to provide for a sufficient number of such centers with particular emphasis on location as to population and distribution of the centers so as to provide for the largest reasonable probability of the compliation of meaningful data relating to:

1. Economy of operation;
2. Ratio of container sold to containers returned;
3. Reuse of recycling of containers;
4. Convenience to the public;
5. Reduction in litter or solid wastes, and such other information as may be of value to the Secretary and the legislature.

10-1523.7 REIMBURSEMENT OF RETAILER

A retailer required to collect and refund deposits of consumers, and to redeem containers upon which deposits are required, shall be reimbursed by the manufacturer or distributor of such beverage containers in the amount of 20 percent of the amount of such deposit returned to the consumer.

This regulation shall not apply in the case of kegs, half-kegs, quarter-kegs, or pony-kegs, and no additional payment in excess of the acutal redemption of the deposit shall be required.

10-1523.8 POSTING

A copy of these regulations shall be conspicuously posted in all retail stores where beer and other malt beverages, mineral waters, soda waters and similar soft drinks are sold.

APPROVED:

/s/ Martin L. Johnson
Martin L. Johnson, Secretary
Agency of Environmental Conservation

Adopted June 1, 1973. Effective July 1, 1973
Amended August 11, 1973; Effective November 1, 1973

Appendix H

State of New York

Taxation—Cigarettes and Tobacco

CHAPTER 394

An Act to amend chapter two hundred thirty-five of the laws of nineteen hundred fifty-two, re-entitled by chapter three hundred sixty-nine of the laws of nineteen hundred fifty-nine "An act to enable any city of the state having a population of one million or more to adopt, and amend local laws, imposing certain specified types of taxes on cigarettes, cigars and smoking tobacco which the legislature has or would have power and authority to impose, to provide for the review of such taxes, and to limit the application of such local laws," in relation to authorizing the imposition of additional taxes based upon the nicotine and/or tar contents of cigarettes.

Approved June 9, 1971, effective as provided in section 2.

Passed on message of necessity. See Const. art. IX, § 2(b) (2) and McKinney's Legislative Law § 44.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Paragraph (a) of subdivision one of section one of chapter two hundred thirty-five of the laws of nineteen hundred fifty-two, re-entitled by chapter three hundred sixty-nine of the laws of nineteen hundred fifty-nine "An act to enable any city of the state having a population of one million or more to adopt, and amend local laws, imposing certain specified types of taxes on cigarettes, cigars and smoking tobacco which the legislature has or would have power and authority to impose, to provide for the review of such taxes, and to limit the application of such local laws," as last amended by chapter two hundred fifty-two of the laws of nineteen hundred sixty-three, is hereby amended to read as follows:

(a) The basic rate of such tax on cigarettes shall not exceed two cents for each ten cigarettes or fraction thereof and is intended to be imposed only once on the same package of cigarettes; in addition to such tax there may be imposed an additional tax at the following rates

(1) One and one-half cents for each ten cigarettes where either their tar content exceeds seventeen milligrams per cigarette or their nicotine content exceeds one and one-tenth milligrams per cigarette;

(2) Two cents for each ten cigarettes where their tar content exceeds seventeen milligrams per cigarette and their nicotine content exceeds one and one-tenth milligrams per cigarette.

§ 2. This act shall take effect July first, nineteen hundred seventy-one, except that local laws may be adopted or amended pursuant to this act before such date to take effect on or after July first, nineteen hundred seventy-one.

Changes or additions in text are indicated by underline

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Appendix I

ADMINISTRATIVE CODE OF THE CITY OF NEW YORK

TITLE D

CIGARETTE TAX

§ D46-2.0 Imposition of tax. --

a. There is hereby imposed and shall be paid a tax on:

1. All cigarettes possessed in the city for sale except as hereinafter provided;

2. The use of all cigarettes in the city except as hereinafter provided;

3. It is intended that the ultimate incidence of and liability for the tax shall be upon the consumer, and that any agent, distributor or dealer who shall pay the tax to the director of finance shall collect the tax from the purchaser or consumer.

Such tax shall be at the basic rate of two cents for each ten cigarettes or fraction thereof and shall be imposed only once on the same package of cigarettes. In addition to such tax there is hereby imposed an additional tax at the following rates:

1. One and one-half cents for each ten cigarettes where either their tar content exceeds seventeen miligrams per cigarette or their nicotine content exceeds one and one-tenth milligrams per cigarette;

2. Two cents for each ten cigarettes where their tar content exceeds seventeen milligrams per cigarette and their nicotine content exceeds one and one-tenth milligrams per cigarette. (Subd. a amended by L. L. 1971, No. 34, June 30, eff. July 1, 1971.)

§ D46-8.0 General powers of the director of finance. --

. . . .

11. In furtherance of the purposes of paragraph three of subdivision a. of section D46-2.0, to provide by appropriate regulation for the maintenance of such differentials in wholesale and retail prices of cigarettes sold by any vendor, other than the manufacturer, so as to reflect the amounts of tax attributable to the tar and nicotine content of cigarettes sold. In so doing he may use and consider the factory price of various brands of cigarettes. In addition, he may consider the mode or method by which retail sales are effected and limit his regulations so as to affect any one or more or all of such modes or methods. (Par. 11 added by L. L. 1971, No. 34, June 30, eff. July 1, 1971.)

Appendix J

State of New York

Cities of One Million or More—Solid Waste Disposal, Containers—Tax

CHAPTER 399

An Act to amend the tax law, by adding thereto provisions enabling any city with a population of one million or more to impose taxes to promote the recycling of containers and reduce the cost of solid waste disposal to such city.

Approved June 9, 1971, effective as provided in section 2.

Passed on message of necessity. See Const. art. IX, § 2(b) (2), and McKinney's Legislative Law § 44.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section twelve hundred one of the tax law is hereby amended by adding thereto a new subdivision, to be subdivision (f), to read as follows:

(f) (1) Taxes on the sale of containers made in whole or in part of rigid or semi-rigid paperboard, fibre, glass, metal, plastic or any combination of such materials, including, but not limited to, barrels, baskets, bottles, boxes, cans, cartons, carrying cases, crates, cups, cylinders, drums, glasses, jars, jugs, pails, pots, rigid foil containers, trays, tubs, tubes, tumblers, and vessels, intended for use in packing or packaging any product intended for sale. Such taxes shall be levied upon the seller or supplier of the container who or which makes sales thereof to the person who purchases them (whether filled or unfilled) for the purpose of using them in connection with and as part of sales at retail or who receives them as containers of products intended for sale at retail. Where no tax has been paid by such seller or supplier, the buyer or person who purchases the container to use it or its contents in making a sale at retail shall be liable for tax thereon upon purchasing such container. Notwithstanding the provisions of section twelve hundred twenty of this article, sellers and suppliers having no business situs in the city imposing the tax, who sell such containers to retailers within the city may pay the tax so as to prevent its levy upon such retailers. Such taxes shall be imposed at rates not to exceed (i) three cents for each plastic bottle, (ii) two cents for each other plastic container, (iii) two cents for each glass container, (iv) two cents for each metal container except one cent for metal containers shown to be made of one metal only. Where a container is made of a combination of two or more of the materials with which this subdivision deals, it shall be classified

Changes or additions in text are indicated by underline

and be taxable as if it were made of that of its component materials for which the following table provides the highest rate:

fibre and paperboard	metal	glass	plastic
1¢	2¢	2¢	3¢

(2) Any local law enacted pursuant to this subdivision may provide that: (i) metal containers and paperboard or fibre containers which have been impregnated, lined or coated with plastic or other materials shall be considered to be classified and taxable as metal containers and paperboard containers, respectively; (ii) paperboard or fibre containers with fastenings, tops and/or bottoms made of other materials dealt with by this subdivision shall be classified and taxed as paperboard or fibre containers; (iii) paperboard, metal, or plastic caps that are easily, readily, usually, and customarily separated from the container before disposal shall not be considered part of the container; and (iv) notwithstanding any exception made pursuant to subparagraphs (i), (ii) and (iii) of this paragraph, where a preponderantly glass container is made of a combination of taxable materials, the complete separation of which materials is not easily, readily, usually and customarily effected after use and before disposal, such container shall be taxed one cent in addition to the tax otherwise imposed upon it, but in no event shall the aggregate tax on such container exceed three cents.

(3) Any local law enacted pursuant to this subdivision may provide that containers sold or furnished containing products intended for use in manufacturing processes and not for final retail sale shall be exempt from such taxes.

(4) Local laws imposing taxes authorized by this subdivision shall provide for the allowance of credits against such taxes as follows:

(i) one cent for each taxable container if manufactured with the following minimum percentages of recycled material:

(A) Paperboard and fibre containers: eighty per cent, if made of boxboard; thirty per cent if made of foodboard, fibre or containerboard.

(B) Metal containers: thirty per cent if taxed during the period beginning July first, nineteen hundred seventy-one and ending June thirtieth, nineteen hundred seventy-two; and forty per cent, if taxed thereafter.

(C) Glass containers: twenty per cent if taxed during the period beginning July first, nineteen hundred seventy-one and ending June thirtieth, nineteen hundred seventy-two; and thirty per cent, if taxed thereafter.

(D) Plastic containers: thirty per cent.

(ii) one cent for each container of a clearly distinct type, class, pattern or form taxed during any taxable period provided that sixty per cent or more of all the containers of such distinct type, class, pattern or form subject to tax during such period were reused containers.

(iii) provided that the credits for each container during any taxable period shall not exceed the amount of taxes due on such container for such period.

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(5) the fiscal officer of any such city in charge of the administration of any tax imposed pursuant to this subdivision, may be authorized by any local law enacted pursuant to this subdivision, to prescribe by regulation, upon the joint recommendation of the chief officer in charge of the department or agency of such city dealing with the interests of consumers and the chief officer in charge of the department or agency of such city charged with the duty of waste collection and disposal:

(i) additional exemptions from and credits against the tax imposed by such local law; and

(ii) an additional surtax of no more than one cent per container, to be imposed upon containers made of any of the taxable components dealt with by this subdivision or any combination thereof.

In granting such exemption or credit or providing for such additional surtax, the above mentioned officers shall take into consideration the following qualities and characteristics of the container in question:

(A) the difficulty the container's material poses to the process of making recycled material.

(B) the difficulty of its manufacture from recycled materials.

(C) the difficulty and relative cost of its disposal.

(D) any obstacle it poses to consumer protection.

(E) the degree to which the container can or cannot be reused.

(F) the slowness, difficulty, and incompleteness with which the container degrades in the natural environment, either chemically or biologically.

Any such exemption, credit or surtax may be revoked by joint action of such officers, or by local law.

(6) There shall be exempted from any tax imposed pursuant to the authority of this subdivision, containers used as receptacles for food, food products, beverages, dietary foods and health supplements, sold for human consumption but not including (i) candy and confectionery, (ii) fruit drinks with contain less than seventy per cent of natural fruit juice, (iii) soft drinks, sodas and beverages such as are ordinarily dispensed at soda fountains or in connection therewith (other than coffee, tea and cocoa) and (iv) beer, wine or other alcoholic beverages.

(7) When used in this subdivision the words (i) "recycled material" mean component materials which have been derived from previously used material or from new or old scrap material, (ii) "retail sale" or "sale at retail" means a sale to any person for any purpose other than for resale as such or as a physical component part of tangible personal property, (iii) "taxable period" means each calendar month or such other periods as the official administering any tax enacted pursuant to this subdivision may provide for by regulation, (iv) "one metal only" means metal with such minimum amounts of alloys as the officer charged with the administration of any local law enacted pursuant to this subdivision shall provide by regulation, but shall not include metal which has been plated or lined with another metal. In formulating such regulations such officer shall consult with the chief officer in charge of the department or agency of such city dealing with the interests of consumers and the chief officer in charge of the department or agency of such city charged with the duty of waste collection and disposal and shall consider the difficulty of using the metal in the making of recycled material and the availability of or technical feasibility of manufacturing other metals for the same purpose and use as the metal in question but with a lower alloy content.

§ 2. This act shall take effect July first, nineteen hundred seventy-one, except that local laws may be adopted or amended pursuant to this act before such date to take effect on or after July first, nineteen hundred seventy-one.

Appendix K

Administrative Code of the City of New York

TITLE F*

TAX ON CONTAINERS

§ F[illegible]-1.0 Definitions.—When used in this title, the following terms shall mean and include:

1. "Person." An individual, partnership, society, association, joint stock company, corporation, estate, receiver trustee, assignee, referee, or any other person acting in a fiduciary or representative capacity, whether appointed by a court or otherwise and any combination of individuals or of the foregoing.

2. "Container." Any article, thing or contrivance made in whole or in part of rigid or semi-rigid plastic, including, but not limited to, barrels, baskets, bottles, boxes, cartons, carrying cases, crates, cups, cylinders, drums, jars, jugs, pails, pots, trays, tubs, tubes, tumblers and vessels, intended for use in packing or packaging any product intended for sale:

(a) Metal containers and paperboard or fiber containers which have been impregnated, lined or coated with plastic or other materials shall be considered to be classified as metal containers and paperboard containers, respectively;

(b) Paperboard or fiber containers with fastenings, tops and/or bottoms made of plastic shall be classified as paperboard or fiber containers;

(c) Plastic caps that are easily, readily, usually and customarily separated from the container before disposal shall not be considered part of the container.

3. "Recycled material." Component materials which have been derived from previously used material or from new or old scrap material.

4. "Taxable period." Such calendar period prescribed for filing returns by this title or by the finance administrator.

5. "Retail sale" or "sale at retail." A sale to any person for any purpose other than for resale as such or as a physical component part of tangible personal property.

6. "Sale." The sale or furnishing of a container by a seller or supplier to a retailer.

7. "Seller or supplier." Any person who sells containers to a retailer.

8. "Retailer." Any person who purchases containers (whether filled or unfilled) for the purpose of using them in connection with and as part of sales at retail or who receives them as containers of products intended for sale at retail.

9. "City." The city of New York.

10. "Finance Administrator." The finance administrator of the city.

11. "Comptroller." The comptroller of the city.

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*Added by L. L. 1971, No. 43, June 30, eff. July 1, 1971.

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§ F46-2.0 **Imposition of tax.**—1. On and after July first, nineteen hundred seventy-one, there is hereby imposed within the city of New York and there shall be paid a tax upon every sale of a plastic container at the rate of two cents for each container sold:

2. A credit shall be allowed against the taxes imposed by this title of one cent for each taxable container if manufactured with a minimum of thirty per cent of recycled material.

CASE NOTES

¶ 1. Imposition of a tax only on containers made in whole or in part of rigid or semi-rigid plastic arbitrarily discriminates against the plastic container industry in favor of the paper, fibre, glass and metal industries and contravenes principles of equal protection and due process of law and hence is invalid. Society of Plastics Industry, Inc. v. City of N. Y., 326 N. Y. S. 2d 788 (1971).

§ F46-3.0 **Presumptions and burden of proof.**—For the purpose of proper administration of this title and to prevent evasion of the tax hereby imposed, it shall be presumed that all sales of plastic containers are taxable, and not entitled to any credit allowed against the taxes imposed hereby. Such presumptions shall prevail until the contrary is established and the burden of proving the contrary shall be upon the taxpayer.

§ F46-4.0 **Payment of the tax.**—The tax imposed hereunder shall be paid by the seller or supplier. However, where the tax has not been paid on a sale by such seller or supplier, the retailer shall be liable for tax thereon upon purchasing the container. Should sellers and suppliers having no business situs in the city, who sell containers to retailers within the city, pay the tax, the retailer purchasing the containers shall not be liable for the tax.

§ F46-5.0 **Records to be kept.**—Every seller or supplier and every retailer shall keep records of all plastic containers taxed hereunder and of all purchases and sales thereof and of the taxes due and payable on the sale or on the purchase thereof, in such form as the finance administrator may by regulation require. Such records shall be available for inspection and examination at any time upon demand by the finance administrator or his duly authorized agent or employee and shall be preserved for a period of three years, except that the finance administrator may consent to their destruction within that period or may require that they be kept longer.

§ F46-6.0 **Exemptions.**—1. The following shall be exempt from the payment of the tax imposed by this title:

(a) The state of New York, or any of its agencies, instrumentalities, public corporations (including a public corporation created pursuant to agreement or compact with another state or Canada) or political subdivisions where it is the purchaser. user or consumer;

(b) The United States of America, and any of its agencies and instrumentalities insofar as it is immune from taxation where it is the purchaser, user or consumer;

(c) The United Nations or other international organizations of which the United States of America is a member; and

(d) Any corporation, or association, or trust, or community chest, fund or foundation, organized and operated exclusively for religious, charitable, or educational purposes, or for the prevention of cruelty to children or animals, and no part of the net earnings of which inures to the benefit of any private shareholder or individual, and no substantial part of the activities of which is carrying on propaganda, or otherwise attempting to influence legislation; provided, however, that nothing in this paragraph shall include an organization operated for the primary purpose of carrying on a trade or business for profit, whether or not all of its profits are payable to one or more organizations described in this subdivision.

2. The following containers shall be exempt from the tax imposed by this title:

a. Containers sold or furnished containing products intended for use in manufacturing processes and not for final retail sale.

b. Containers used as receptacles for food, food products, beverages, dietary foods and health supplements, sold for human consumption but not including (i) candy and confectionery, (ii) fruit drinks which contain less than seventy percent of natural fruit juice, (iii) soft drinks, sodas and beverages such as are ordinarily dispensed at soda fountains or in connection therewith (other than coffee, tea and cocoa) and (iv) beer, wine or other alcoholic beverages.

§ F46-7.0 **Returns.** Every seller or supplier shall file with the finance administrator a return of containers sold and of the taxes due and payable thereon for the period from the day this tax takes effect until the last day of September, nineteen hundred seventy-one and thereafter for each of the four-monthly periods ending on the last day of January, May and September of each year.

2. Every retailer shall file with the finance administrator a return of containers purchased by him from sellers or suppliers having no situs within the city and of the taxes due thereon for the same periods provided in subdivision one of this section.

3. The returns shall be filed within twenty days after the end of the periods covered thereby. The finance administrator may permit or require returns to be made for other periods and upon such

dates as he may specify. If the finance administrator deems it necessary in order to insure the payment of the tax imposed by this title, he may require returns to be made for shorter periods than those prescribed pursuant to the foregoing provisions* of this subdivision and upon such dates as he may specify.

4. The forms of returns shall be prescribed by the finance administrator and shall contain such information as he may deem necessary for the proper administration of this title. The finance administrator may require amended returns to be filed within twenty days after notice and to contain the information specified in the notice.

5. If a return required by this title is not filed or if a return when filed is incorrect or insufficient on its face the finance administrator shall take the necessary steps to enforce the filing of such a return or a corrected return.

§ F46-8.0 **Determination of tax.**—If a return required by this title is not filed, or if a return when filed is incorrect or insufficient, the amount of tax due shall be determined by the finance administrator from such information as may be obtainable and, if necessary, the tax may be estimated on the basis of external indices, such as volume of sales, inventories, purchases of containers, or of raw materials, production figures, and/or other factors. Notice of such determination shall be given to the person liable for the collection and/or payment of the tax. Such determination shall finally and irrevocably fix the tax unless the person against whom it is assessed, within thirty days after giving notice of such determination, shall apply to the finance administrator for a hearing, or unless the finance administrator of his own motion shall re-determine the same. After such hearing the finance administrator shall give notice of his determination to the person against whom the tax is assessed. The determination of the finance administrator shall be reviewable for error, illegality or unconstitutionality or any other reason whatsoever by a proceeding under article seventy-eight of the civil practice law and rules if application therefor is made to the supreme court within four months after the giving of the notice of such determination. A proceeding under article seventy-eight of the civil practice law and rules shall not be instituted unless (a) the amount of any tax sought to be reviewed, with penalties and interest thereon, if any, shall be first deposited with the finance administrator and there shall be filed with the finance administrator an undertaking, issued by a surety company authorized to transact business in this state and approved by the superintendent of insurance of this state as to solvency and responsibility, in such amount as a justice of the supreme court shall approve to the effect that if such proceeding be dismissed or the tax confirmed, the petitioner will pay all costs and charges which may accrue in the prosecution of the proceeding; or (b) at the option of the applicant such undertaking filed with the finance administrator may be in a sum sufficient to cover the taxes, penalties and interest thereon stated in such determination plus the costs and charges which may accrue against it in the prosecution of the proceeding, in which event the applicant shall not be required to deposit such taxes, penalties and interest as a condition precedent to the application.

* So in original.

§ **F46-9.0 Refunds.**—a. In the manner provided in this section the finance administrator shall refund or credit, without interest, any tax, penalty or interest erroneously, illegally or unconstitutionally collected or paid if application to the finance administrator for such refund shall be made within one year from the payment thereof. Whenever a refund is made by the finance administrator, he shall state his reasons therefor in writing. Such application may be made by the seller or supplier or the retailer or other person who has actually paid the tax. The finance administrator may, in lieu of any refund required to be made, allow credit therefor on payments due from the applicant.

b. An application for a refund or credit made as herein provided shall be deemed an application for revision of any tax, penalty or interest complained of. If the finance administrator, prior to any hearing being held, initially denies the application for refund, he shall give notice of such determination of denial to the applicant. Such determination shall be final and irrevocable unless the applicant, within thirty days after the giving of notice of such determination, shall apply to the finance administrator for a hearing, or unless the finance administrator of his own motion shall redetermine the same. After such hearing the finance administrator shall give notice of his determination to the applicant, who shall be entitled to review such determination by a proceeding pursuant to article seventy-eight of the civil practice law and rules, provided such proceeding is instituted within four months after the giving of the notice of such determination, and provided that a final determination of tax was not previously made. Such a proceeding shall not be instituted unless an undertaking is filed with the finance administrator in such amount and with such sureties as a justice of the supreme court shall approve to the effect that if such proceeding be dismissed or the tax confirmed, the petitioner shall pay all costs and charges which may accrue in the prosecution of such proceeding.

c. A person shall not be entitled to a revision, refund or credit under this section of a tax, interest or penalty which had been determined to be due pursuant to the provisions of section F46-8.0 of this title where he has had a hearing or an opportunity for a hearing, as provided in said section, or has failed to avail himself of the remedies therein provided. No refund or credit shall be made of a tax, interest or penalty paid after a determination by the finance administrator made pursuant to section F46-7.0 of this title unless it be found that such determination was erroneous, illegal or unconstitutional or otherwise improper, by the finance administrator after a hearing or of his own motion, or in a proceeding under article seventy-eight of the civil practice law and rules, pursuant to the provisions of said section, in which event refund or credit without interest shall be made of the tax, interest or penalty found to have been overpaid.

§ **F46-10.0 Reserves.**—In cases where the seller or supplier or the retailer has applied for a refund and has instituted a proceeding under article seventy-eight of the civil practice law and rules to review a determination adverse to him on his application for refund, the comptroller shall set up appropriate reserves to meet any decision adverse to the city.

§ F46-11.0 **Remedies exclusive.**—The remedies provided by sections F46-8.0 and F46-9.0 of this title shall be the exclusive remedies available to any person for the review of tax liability imposed by this title; and no determination or proposed determination of tax or determination on any application for refund shall be enjoined or reviewed by an action for declaratory judgment, an action for money had and received or by any action or proceeding other than a proceeding in the nature of a certiorari proceeding under article seventy-eight of the civil practice law and rules; provided, however, that a taxpayer may proceed by declaratory judgment if he institutes suit within thirty days after a deficiency assessment is made and pays the amount of the deficiency assessment to the finance administrator prior to the institution of such suit and posts a bond for costs as provided in section F46-8.0 of this title.

§ F46-12.0 **Proceedings to recover tax.**—a. Whenever any seller or supplier or retailer or other person shall fail to pay any tax, penalty or interest imposed by this title as therein provided, the corporation counsel shall, upon the request of the finance administrator bring or cause to be brought an action to enforce the payment of the same on behalf of the city of New York in any court of the state of New York or of any other state or of the United States. If, however, the finance administrator in his discretion believes that any such sellor or supplier or retailer or other person is about to cease business, leave the state or remove or dissipate the assets out of which the tax, penalties or interest might be satisfied, and that any such tax, penalty or interest will not be paid when due, he may declare such tax, penalty or interest to be immediately due and payable and may issue a warrant immediately.

b. As an additional or alternate remedy, the finance administrator may issue a warrant, directed to the city sheriff commanding him to levy upon and sell the real and personal property of the seller or supplier or retailer or other person liable for the tax, which may be found within the city, for the payment of the amount thereof, with any penalties and interest, and the cost of executing the warrant, and to return such warrant to the finance administrator and to pay him the money collected by virtue thereof within sixty days after the receipt of such warrant. The city sheriff shall within five days after the receipt of the warrant file with the county clerk a copy thereof, and thereupon such clerk shall enter in the judgment docket the name of the person mentioned in the warrant and the amount of the tax, penalties and interest for which the warrant is issued and the date when such copy is filed. Thereupon the amount of such warrant so docketed shall become a lien upon the title to and interest in real and personal property of the person against whom the warrant is issued. The city sheriff shall then proceed upon the warrant, in the same manner, and with like effect, as that provided by law in respect to executions issued against property upon judgments of a court of record, and for services in executing the warrant he shall be entitled to the same fees, which he may collect in the same manner. In the discretion of the finance administrator a warrant of like terms, force and effect may be issued and directed to any officer or employe of the finance administration, and in the execution thereof such officer or employee shall have all the powers conferred by law upon sheriffs, but shall be entitled to no fee or compensation in excess of the actual expenses paid in the performance of such duty. If a warrant is returned not satisfied in full, the finance administrator may from time to time issue new warrants and shall also have the same remedies to enforce the amount due thereunder as if the city had recovered judgment therefor and execution thereon had been returned unsatisfied.

c. Whenever a seller or supplier or the retailer shall make a sale, transfer, or assignment in bulk of any part of the whole of his fixtures, or of his stock of merchandise, or of stock or merchandise and of fixtures pertaining to the conduct or operation of business of the seller or supplier or the retailer, otherwise than in the ordinary course of trade and regular prosecution of business, the purchaser, transferee or assignee shall at least ten days before taking possession of the subject of said sale, transfer or assignment, or paying therefor, notify the finance administrator by registered mail of the proposed sale and of the price, terms and conditions thereof whether or not the seller, transferrer or assignor, has represented to, or informed the purchaser, transferee or assignee that it owes any tax pursuant to this title, and whether or not the purchaser, transferee or assignee has knowledge that such taxes are owing, and whether any such taxes are in fact owing.

Whenever the purchaser, transferee or assignee shall fail to give notice to the finance administrator as required by the preceding paragraph, or whenever the finance administrator shall inform the purchaser, transferee or assignee that a possible claim for such tax or taxes exists, any sums of money, property or choses in action, or other consideration, which the purchaser, transferee or assignee is required to transfer over to the seller, transferrer or assignor shall be subject to a first priority right and lien for any such taxes theretofore or thereafter determined to be due from the seller, transferrer or assignor to the city, and the purchaser, transferee or assignee is forbidden to transfer to the seller, transferrer or assignor any such sums of money, property or choses in action to the extent of the amount of the city's claim. For failure to comply with the provisions of this subdivision, the purchaser, transferee or assignee, in addition to being subject to the liabilities and remedies imposed under the provisions of article six of the uniform commercial code, shall be personally liable for the payment to the city of any such taxes theretofore or thereafter determined to be due to the city from the seller, transferrer or assignor, and such liability may be assessed and enforced in the same manner as the liability for tax under this title.

§ F46-13.0 **General powers of the finance administrator.**—In addition to the powers granted to the finance administrator in this title, he is hereby authorized and empowered:

1. To make, adopt and amend rules and regulations appropriate to the carrying out of this title and the purposes thereof;

2. To extend, for cause shown, the time of filing any return for a period not exceeding thirty days; and for cause shown, to remit penalties but not interest computed at the rate of six per cent per annum; and to compromise disputed claims in connection with the taxes hereby imposed;

3. To request information from the tax commission of the state of New York or the treasury department of the United States relative to any person; and to afford information to such tax commission or such treasury department relative to any person, any other provision of this title to the contrary notwithstanding;

4. To delegate his functions hereunder to a deputy administrator, assistant administrator, commissioner or deputy commissioner in the finance administration or to any employee or employees of the finance administrator;

5. To prescribe methods for determining the containers sold or supplied or purchased and to determine which are taxable and nontaxable.

6. To require sellers and suppliers and retailers within the city to keep detailed records with respect to containers bought, sold, used, manufactured or produced, and stock and production records with respect to such containers whether or not subject to the tax imposed by this title, and to furnish any information with respect thereto upon request to the finance administrator;

7. To assess, determine, revise and readjust the taxes imposed under this title.

§ F46-14.0 **Administration of oaths and compelling testimony.**—a. The finance administrator or his employees or agents duly designated and authorized by him shall have power to administer oaths and take affidavits in relation to any matter or proceeding in the exercise of their powers and duties under this title. The finance administrator shall have power to subpoena and require the attendance of witnesses and the production of books, papers and documents to secure information pertinent to the performance of his duties hereunder and of the enforcement of this title and to examine them in relation thereto, and to issue commissions for the examination of witnesses who are out of the state or unable to attend before him or excused from attendance.

b. A justice of the supreme court either in court or at chambers shall have power summarily to enforce by proper proceedings the attendance and testimony of witnesses and the production and examination of books, papers and documents called for by the subpoena of the finance administrator under this title.

c. Any person who shall refuse to testify or to produce books or records or who shall testify falsely in any material matter pending before the finance administrator under this title shall be guilty of a misdemeanor, punishment for which shall be a fine of not more than one thousand dollars or imprisonment for not more than one year, or both such fine and imprisonment.

d. The officers who serve the summons or subpoena of the finance administrator and witnesses attending in response thereto shall be entitled to the same fees as are allowed to officers and witnesses in civil cases in courts of record, except as herein otherwise provided. Such officers shall be the city sheriff and his duly appointed deputies or any officers or employees of the finance administration, designated to serve such process.

§ F46-15.0 **Penalties and interest.**—a. Any person failing to file a return or to pay any tax to finance administrator within the time required by this article shall be subject to a penalty of five percent of the amount of tax due; plus interest at the rate of one percent of such tax for each month of delay excepting the first month after such return was required to be filed or such tax became due; but the finance administrator if satisfied that the delay was excusable, may remit all or any part of such penalty, but not interest at the rate of six percent per year. Such penalties and interest shall be paid and disposed of in the same manner as other revenues from this title. Unpaid penalties and interest may be enforced in the same manner as the tax imposed by this title.

b. Any seller or supplier or any retailer or any officer of a corporate seller or supplier or retailer, failing to file a return as required by this title, or filing or causing to be filed or making or causing to be made or giving or causing to be given any return, certificate, affidavit, representation, information, testimony or statement required or authorized by this title which is willfully false, and any sellor or supplier or any retailer or any officer of a corporate seller or supplier or retailer failing to keep the records required by subdivision six of section F46-13.0 of this title, shall, in addition to the penalties herein or elsewhere prescribed, be guilty of a misdemeanor, punishment for which shall be a fine of not more than one thousand dollars or imprisonment for not more than one year, or both such fine and imprisonment. It shall not be any defense to a prosecution under this subdivision that the failure to file a return or that the actions or failures to act mentioned in this subdivision was unintentional or not willful.

c. The certificate of the finance administrator to the effect that a tax has not been paid, that a return has not been filed, or that information has not been supplied pursuant to the provisions of this title, shall be presumptive evidence thereof.

§ F46-16.0 **Returns to be secret.**—a. Except in accordance with proper judicial order, or as otherwise provided by law, it shall be unlawful for the finance administrator, any officer or employee of the finance administration, any person engaged or retained on an independent contract basis or any person who, pursuant to this section is permitted to inspect any return or to whom a copy, an abstract or a portion of any return is furnished, or to whom any information contained in any return is furnished, to divulge or make known in any manner any information contained in or relating to any return required under this title. The officers charged with the custody of such returns shall not be required to produce any of them or evidence of anything contained in them in any action or proceeding in any court, except on behalf of the finance administrator in an action or proceeding under the provisions of this title, or on behalf of any party to any action or proceeding under the provisions of this title, when the returns or facts shown thereby are directly involved in such action or proceeding, in either of which events the court may require the production of, and may admit in evidence, so much of said returns or of the facts shown thereby, as are pertinent to the action or proceeding and no more. Nothing herein shall be construed to prohibit the delivery to a taxpayer or his duly authorized representative of a certified copy of any return filed in connection with his tax; nor to prohibit the delivery of such a certified copy of such return or of any information contained in or relating thereto, the United States of America or any department thereof, to the state of New York or any department thereof, or to any agency or department of the city of New York, provided the same is requested for official business; nor to prohibit the inspection for official business of such returns by the corporation counsel or other legal representatives of the city of or by the district attorney of any county within the city; nor to prohibit the publication of statistics so classified as to prevent the identification of particular returns and the items thereof. Returns shall be preserved for three years and thereafter until the finance administrator permits them to be destroyed.

b. Any violation of subdivision a of this section shall be punishable by a fine not exceeding one thousand dollars, or by imprisonment not exceeding one year, or both, in the discretion of the court, and if the offender be an officer or employee of the city he shall be dismissed from office and be incapable of holding any public office for a period of five years thereafter.

§ F46–17.0 **Notices and limitations of time.**—a. Any notice authorized or required under the provisions of this title may be given by mailing the same to the person for whom it is intended in a postpaid envelope addressed to such person at the address given in the last return filed by him pursuant to the provisions of this title or in any application made by him or, if no return has been filed or application made, then to such address as may be obtainable. The mailing of such notice shall be presumptive evidence of the receipt of the same by the person to whom addressed. Any period of time which is determined according to the provisions of this title by the giving of notice shall commence to run from the date of mailing of such notice.

b. The provisions of the civil practice law and rules or any other law relative to limitations of time for the enforcement of a civil remedy shall not apply to any proceeding or action taken by the city to levy, appraise, assess, determine or enforce the collection of any tax or penalty provided by this title. However, except in the case of a wilfully false or fraudulent return with intent to evade the tax, no assessment of additional tax shall be made after the expiration of more than three years from the date of the filing of a return; provided, however, that where no return has been filed as provided by law the tax may be assessed at any time.

c. Where, before the expiration of the period prescribed herein for the assessment of an additional tax, a taxpayer has consented in writing that such period be extended, the amount of such additional tax due may be determined at any time within such extended period. The period so extended may be further extended by subsequent consents in writing made before the expiration of the extended period.

§ F46–18.0 **Construction and enforcement.**—This title shall be construed and enforced in conformity with chapter three hundred ninety-nine of the laws of nineteen hundred seventy-one, pursuant to which it is enacted.

§ F46–19.0 **Separability.**—In* any provision of this title, or the application thereof to any person or circumstances, is held invalid, the remainder of this title, and the application of such provisions to other persons or circumstances shall not be affected thereby.

Appendix L

Vermont Property Tax Relief Act

32 V.S.A. §§5961 *et seq.*

NO. 81. AN ACT TO AMEND 32 V.S.A. §§ 5961, 5962(e), 5967, 5968, 5973; TO ADD 32 V.S.A. §§ 5976, 5977 AND 32 V.S.A. CHAPTER 236 AND TO REPEAL 32 V.S.A. § 5966 RELATING TO PROPERTY TAXES.

(H. 155)

It is hereby enacted by the General Assembly of the State of Vermont:

Sec. 1. 32 V.S.A. § 5961 is amended to read:

§ 5961. Definitions

(a) The following definitions shall apply throughout this chapter unless the context requires otherwise:

(1) "Effective tax rate" means 100 times the total property taxes raised by the municipality divided by the equalized fair market value of the property in the municipality as determined in section 3458a of Title 16.

(2) "Homestead" means the dwelling, situated within the state of Vermont, owned or rented by the claimant, and as much of the land surrounding it as is reasonably necessary for use of the dwelling as a home but in no event to exceed two acres; and may consist of a part of a multi-dwelling or multi-purpose building and a part of the land upon which it is built. A mobile home may constitute a homestead for purposes of this chapter.

(3) "Household" means, for any individual and for any taxable year, the individual and such other persons as resided with the individual in his homestead at any time during the taxable year.

(4) "Household income" means modified adjusted gross income received by all persons of a household in a calendar year while members of that household.

(5) "Modified adjusted gross income" means the sum of "adjusted gross income" as defined in section 5811 of this title, alimony, support money, cash public assistance and relief (not including relief granted under this subchapter), cost of living allowances paid to federal employees, allowances received by dependents of servicemen, the gross amount of any pension or annuity (including railroad retirement benefits, all payments received under the Federal Social Security Act, and all benefits under Veteran's Acts), nontaxable interest received from the state or federal government or any of its instrumentalities, workmen's compensation, the gross amount of "loss of time" insurance, and the amount of capital gains excluded from adjusted gross income. It does not include gifts from nongovernmental sources, or surplus food or other relief in kind supplied by a governmental agency.

(6) "Property tax" means the amount of liability for the ad valorem tax actually paid by a claimant for real estate taxes, exclusive of special assessments, delinquent interest and charges for service, assessed on real property in this state used as his homestead in the taxable year.

(7) "Rent constituting property taxes" means for any homestead and for any taxable year, 20 per cent of the gross rent actually paid during the taxable year by the individual or other members of his household solely for the right of occupancy of their homestead in this state during the taxable year, but shall not include any part of rent paid for occupancy of premises which are legally exempt from the payment of property taxes thereon.

Sec. 2. 32 V.S.A. § 5962(e) is amended to read:

(e) Whenever a homestead is an integral part of a larger unit such as a farm, or a multi-purpose or multi-dwelling building, property taxes paid shall be that percentage of the total property tax as the value of the homestead is to the total value. Upon a claimant's request the listers shall certify to him the value of his homestead.

Sec. 3. 32 V.S.A. § 5967 is amended to read:

§ 5967. Computation of credit

(a) An individual 65 years of age or older shall be entitled to a credit against his tax liability under chapter 151 of this title and an individual under 65 years of age on the last day of the taxable year shall be entitled to a credit payable under section 5977 of this title. The amount of the credit shall be equal to the amount by which the property taxes, or the rent constituting property taxes, upon the individual's homestead for the taxable year exceeds a percentage of the individual's income for the taxable year determined according to the following schedule:

If household income (rounded to the nearest dollar) is:	*then the taxpayer is entitled to credit for property tax paid in excess of this percent of that income*
0– $ 3,999.00	4%
$ 4,000.00– 7,999.00	4.5%
8,000.00– 11,999.00	5%
12,000.00– 15,999.00	5.5%
16,000.00– and up	6%

In no event shall the credit exceed the amount of the property tax.

(b) To be eligible for a credit the individual:

(1) must be domiciled in this state during the entirety of the taxable year, and

(2) may not be a full time student claimed as a dependent by any taxpayer under the Federal Internal Revenue Code.

(c) With respect to credits claimed for the taxable year ending December 31, 1973, individuals 65 years of age or older on December 31, 1973, shall not receive less of a credit under this section than they would have received under this section as in effect with respect to credits claimed for the taxable year ending December 31, 1972.

(d) In the event that the tax liability under chapter 151 of this title of the individual for the taxable year is less than the amount of the credit, the difference between such tax liability and the credit shall be returned to the taxpayer, without interest, by the commissioner.

Sec. 4. 32 V.S.A. § 5968 is amended to read:

§ 5968. Limitations

(a) The credit granted under this chapter is subject to the following limitations:

(1) Only one individual per household per taxable year shall be entitled to the credit.

(2) The amount of the credit shall not exceed $500.00.

(3) For the property taxes assessed for calendar year 1974 and each year thereafter the amount of the credit (determined without taking into consideration subdivision (2) of this subsection) shall be reduced by one per cent for each full one per cent increase, after first subtracting three per cent from such percentage of increase, in the effective tax rate of the municipality for the year of assessment of the property taxes for which credit is claimed over the effective tax rate of the municipality for the immediately preceding year. In making calculations hereunder the commissioner shall make allowance for, by deductions from the effective tax rate, any amounts of taxes assessed for the sole purpose of providing for a town or school district to convert to a fiscal year end-

ing on June 30. The commissioner shall calculate and publish such percentages for each municipality.

Sec. 5. 32 V.S.A. § 5973 is amended to read:

§ 5973. Excessive and fraudulent claims

(a) In any case in which it is determined under the provisions of this title that a claim is or was excessive and was filed with fraudulent intent, the claim shall be disallowed in full, and, if the claim has been paid or a credit has been allowed against income taxes otherwise payable, the credit shall be cancelled and the amount paid may be recovered by assessment as income taxes are assessed. A penalty of twenty-five per cent of the amount claimed shall be imposed and the assessment shall bear interest from the due date of the return, until refunded or paid, at the rate of one-half of one per cent per month. The claimant in that case, and any person who assisted in the preparation of filing of such excessive claim or supplied information upon which the excessive claim was prepared, with fraudulent intent, shall be guilty of a misdemeanor.

(b) In any case in which it is determined that a claim is or was excessive the commissioner may impose a ten per cent penalty on such excess and if the claim has been paid or credited against income taxes otherwise payable, the credit shall be reduced or cancelled, and the proper portion of any amount paid, shall be similarly recovered by assessment as income taxes are assessed and such assessment shall bear interest at the rate of one-half of one per cent per month from the date of payment until refunded or paid.

(c) In any case in which a homestead is rented by a person from another person under circumstances deemed by the commissioner to be not at arms-length, he may determine the tax factor in rent for purposes of this chapter.

Sec. 6. 32 V.S.A. § 5976 is added to read:

§ 5976. Property tax relief trust fund

(a) A property tax relief trust fund is hereby established for the payment of property tax credits or claims under this chapter. The fund shall be comprised of three million dollars of the general revenue-sharing funds paid to the state in fiscal year 1973 by the federal government pursuant to the State and Local Fiscal Assistance Act of 1972 (P.L. 92-512), and the entire amount of general revenue-sharing funds paid to the state in the subsequent fiscal years by the federal government pursuant to that act. In addition the fund shall include all revenues collected during each fiscal year from the tax on the gains from the sale or exchange of land imposed by chapter 236 of this Title in excess of $500,000.00. The general assembly may appropriate additional funds to the property tax relief trust fund. All interest accrued or generated by revenue in the fund shall remain in the fund to be expended in accordance with its purposes. Of the above funds $200,000.00 shall be made available to the commissioner of taxes for the administration of this act.

(b) Any funds in the property tax relief trust fund not expended in any fiscal year shall be carried over for expenditure in future fiscal years.

Sec. 7. 32 V.S.A. § 5977 is added to read:

§ 5977. Payments of claims

(a) The property tax relief trust fund shall be used for the payment of claims for credits under this chapter.

(b) No credit shall be claimed or paid in any fiscal year in which the federal government provides no general revenue-sharing funds pursuant to the State and Local Fiscal Assistance Act of 1972 (P.L. 92-512).

(c) Credits shall be paid in full upon receipt of claims from persons who were 65 years of age or older during any portion of the year for which the claims were filed.

(d) The commissioner shall not pay any claims to claimants who were under 65 years of age on the last day of the taxable year for which the claim is made until the total amount of all timely-filed claims has been paid under subsection (c) of this section. After payment of the claims under subsection (c) of this section the balance of the property tax relief trust fund shall be available to pay the claims of claimants under the age of 65 on the last day of the taxable year for which the claim is made. Such balance shall be determined as of June 30, annually, less the sum of $20,000.00 annually for payment of late-filed claims approved by the commissioner under section 5970 of this title and less the sum of $200,000.00 provided for administrative expenses under § 5976 (a) of this act.

(e) If insufficient funds exist to pay the full amount of all claims of persons under age 65 on the last day of the taxable year for which the claim is made, payments shall be made to such claimants proportionately. No payment shall exceed 100 per cent of the amount of the claim.

(f) Late-filed claims approved by the commissioner under section 5970 of this title shall be paid at the same percentage thereof as timely-filed claims, until the funds provided under subsection (d) of this section for the payment of such claims have been exhausted.

(g) All claimants under age 65 on the last day of the taxable year for which a claim is made shall file for a credit on forms prepared by the commissioner. Such claims filed for the taxable years 1973 and 1974 shall be processed separately from the Vermont income tax returns filed by the claimants, and no amount of a claim shall be allowed as a credit against the tax liability under chapter 151 of this title. The commissioner shall not proceed to pay such claims until after June 30 annually, for claims filed for the immediately preceding taxable year.

Sec. 8. 32 V.S.A. Chapter 236 is added to read:

Chapter 236. Tax on Gains From the Sale or Exchange of Land

§ 10001. Tax imposed

There is imposed, in addition to all other taxes imposed by this title, a tax on the gains from the sale or exchange of land in Vermont.

§ 10002. Land

Land means all land, whether or not improved, but does not include land, not exceeding one acre, necessary for the use of a dwelling used by the taxpayer as his principal residence. Buildings or other structures are not included in this definition of land.

§ 10003. Rate of tax

The tax imposed by section 10001 of this title shall be based upon the years held at the following rates on the gain, as gain is determined under section 10005 of this title:

Years land held by transferor	**Gain, as a percentage of basis (tax cost)*		
	0-99%	100-199%	200% or more
Less than 1 year	30%	45%	60%
1 year, but less than 2	25%	37.5%	50%
2 years, but less than 3	20%	30%	40%
3 years, but less than 4	15%	22.5%	30%
4 years, but less than 5	10%	15%	20%
5 years, but less than 6	5%	7.5%	10%

§ 10004. Sale or exchange

(a) As used in this chapter "sale or exchange of land" shall mean any transfer of title to land for a consideration. As used in this chapter "transfer" and "title" shall have the same meaning as "transfer" and "title to property" as used in section 9601 of this title, except as modified or enlarged by explicit provisions of this chapter and as limited herein to land. The transfer of an option for the sale or exchange of land shall be considered a transfer of title to land for the purposes of this chapter.

(b) Contracts for the sale of land constitute sales or exchanges of land for all purposes of this chapter. However, contracts shall not constitute sales or exchanges until some consideration has passed thereunder to or for the benefit of the seller or exchanger. The sale or exchange is considered to take place at the time any consideration whatsoever, of whatever nature, first passes under the contract. A mere promise to purchase, and amounts paid as earnest money, or amounts paid in deposit or amounts paid in escrow to which the seller has no immediate right, do not constitute the passing of consideration for the purposes of this chapter.

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*(Gain, as percent of basis, shall be rounded to the next highest whole percentage.)

(c) Any sale or exchange of shares in a corporation or other entity, or of comparable rights or property interests in any other form of organization or legal entity, which effectively entitles the purchaser to the use or occupancy of land constitutes a sale or exchange of land.

§ 10005. Basis, gain and holding period

(a) The provisions of the Federal Internal Revenue Code shall determine the basis (tax cost) of land sold or exchanged.

(b) The amount realized from the sale or exchange shall be the full actual consideration therefor, paid or to be paid, including the amount of any liens or encumbrances on the land existing before the sale or exchange and not removed thereby. The amount realized from the sale or exchange shall be the gross amount thereof, reduced by any expenses of sale and commissions. In the event that a sale includes land and buildings or other structures, the amount realized shall be allocated between the land and the buildings or other structures on the basis of fair market value.

(c) The taxable gain from the sale or exchange is the amount realized minus the basis (tax cost) of the land as determined under subsection (a) of this section. No gain shall be recognized in cases where gain is not recognized under the Federal Internal Revenue Code, as amended, in relation to the sale or exchange of capital assets.

(d) The land sold or exchanged shall be deemed to have been held as determined under the Federal Internal Revenue Code for the same length of time that the seller or exchanger thereof has had actual and recorded title thereto in his own name, and shall include the time the land was so held prior to the effective date of this chapter. If a husband and wife are tenants by the entirety there may be added to the holding period the amount of time the land was held by one spouse alone before that spouse created the tenancy by the entirety. In the case of a gift, the holding period of the donee shall include the time that actual and recorded title was held by the donor.

(e) The taxable gain under this chapter from the sale or exchange of land shall not be reduced by any losses incurred in other transactions.

§ 10006. Liability for tax

The person liable for the tax is the transferor (which includes the owner, seller, or other exchanger) of the land sold or exchanged.

§ 10007. Withholding at source; payment

(a) The buyer or transferee of any land held by the seller or transferor for less than six years, shall withhold ten per cent of all consideration paid to the seller or transferor for such land, including ten per cent of all partial payments made pursuant to installment sales under section 10008 of this title. At the time any payment is made to the seller or transferor, the amounts withheld shall be remitted to the commissioner of taxes.

(b) Within 30 days of the sale or exchange of land, for which withholding is required under this section, the seller or transferor shall file a return with the commissioner of taxes setting forth the amount of the tax due pursuant to section 10003 of this title and the amount withheld by the buyer or transferee pursuant to subsection (a) of this section. The seller shall either remit with the return the balance of the tax due or make claim for a refund. Any refund not made by the commissioner within 15 days of receipt by him of a valid claim shall accrue interest at the rate of one-half of one per cent per month. For good cause shown and upon conditions set by him, the commissioner may extend the time for filing the return and paying the tax required by this chapter.

(c) Notwithstanding either subsection (a) or (b) of this section, the seller or transferor may, in advance of the sale or exchange, pay the tax imposed by this chapter or obtain a written ruling from the commissioner of taxes that no tax is due under this chapter. In either case the commissioner shall certify to the seller or transferor that such payment has been made or that no tax is due. Upon receipt by the buyer or transferee of such certification from the seller or transferor, the buyer or transferee shall not be required to withhold under subsection (a) of this section.

(d) All taxes required to be paid or withheld under this chapter shall constitute a personal debt of the person liable to pay or withhold the same to the state of Vermont to be recovered in an action on this statute.

(e) An action may be brought to recover the amount of the taxes to be paid or withheld in the manner prescribed for recovering amounts owed for taxes under chapter 151 of this title. The amount of taxes to be paid or withheld shall be a lien in favor of the state of Vermont upon all property and rights to property, whether real or personal, belonging to the person liable for the tax or for the withholding. The lien shall be enforced in the manner prescribed by section 5895 of this title.

§ 10008. Installment sales

(a) For the purpose of this section "installment sale" means sale or exchange of land as defined in section 10004 of this title for which the total tax due under this chapter is greater than $2,000.00 and in which the parties agree in advance that payments shall be received by the seller or transferor in more than one installment on a date or dates other than the date of closing. A sale financed by a mortgage, deed of trust, or other financing arrangement in which the seller or transferor is paid in full on the date of the sale or exchange shall not be considered an installment sale. A lease-purchase agreement under which any part of the rental payments constitute a portion of the purchase price of the land shall be considered an installment sale, and for the purposes of this chapter the end of the holding period with respect to the sale or exchange shall be determined as of the date of the agreement.

(b) Notwithstanding any provision of law to the contrary, the tax under this chapter on any installment sale shall be due within 30 days of the date of payment of each installment paid to the seller or transferor. However, except for the first installment the seller or transferor may elect to file his return as part of his Vermont income tax return for any year in which subsequent installments are paid or due, and to pay the balance of such tax as part of such income tax; provided that, if the seller or transferor elects to file annual returns no interest shall accrue on any withholding as provided by section 10007(b) of this title.

(c) In an installment sale, the total amount of taxes due under this chapter shall be the amount that would have been due had the total purchase price been paid on the date the sale or exchange took place. The amount of taxes due on each separate installment, including the first installment, shall bear the same proportion to the total amount of taxes due as the amount of that installment bears to the total consideration.

§ 10009. Administration of tax

(a) The commissioner of taxes shall administer and enforce this chapter and this tax. He may issue, amend, and withdraw from time to time, reasonable regulations to assist such administration and enforcement.

(b) All the administrative provisions of chapter 151 of this title, including those relating to the collection and enforcement by the commissioner of the withholding tax and the income tax shall apply to the tax imposed by this chapter.

§ 10010. Criminal penalties

(a) Any person who wilfully defeats or evades or attempts to defeat or evade the tax imposed by this chapter shall be imprisoned not more than one year or fined not more than $10,000.00 or five times the amount of the tax defeated or evaded or attempted to be defeated or evaded, whichever is larger, or may be both thus imprisoned and fined. A corporation or other taxable entity not being a natural person shall be subject to the fine provided by this section.

(b) Any officer, employee, director, trustee or other responsible person of a corporation or other taxable entity, and any other person, who counsels, aids, abets, participates in, or conceals the defeat or evasion of tax, or the attempt thereat, shall be subject to the penalties of subsection (a) of this section.

(c) The form for the payment of the tax under this chapter shall set forth in large type the penalties provided by this section.

Sec. 9. 32 V.S.A. § 5966 is repealed.

Sec. 10. Preparation of property maps

The first $500,000.00 of revenues collected during each fiscal year commencing July 1, 1973 and thereafter from the tax on gains from the sale or exchange of land under chapter 236 of Title 32 shall be used by the commissioner for the preparation of property maps required by section 3409 of Title 32.

Sec. 11. This act shall t[illegible] effect May 1, 1973; except that sections 1 through 7 shall [illegible] only to property taxes assessed and paid for the calendar [illegible]973 and thereafter.

Approved: [illegible], 1973.

COLECTION OF LAWS
OF THE
CZECHOSLOVAK
SOCIALIST REPUBLIC

Decree of the Government No 16 from March 12, 1966 concerning indemnities for discharging untreated or insuficiently treated waste waters into streams.

In accordance with par. 27, chapt. 2 of the Water Act 1955 (No 11), as newly formulated in the Law No 12, 1959, according to par. 391 of the Economy Act 1964, according to par. 20 of the State Budget Act 1959 (No 8), further according to par. 11 of the Financial Act 1958 (No 83), the Government of the Czechoslovak Socialist Republic proclaims.

Par. 1.
The object of the Decree

Considering the necessity of gradual improvement of the water quality in streams the present Decree states the duty of water users to pay according to conditions herein stipulated indemnities to appropriate River Boards for discharging untreated or insufficiently treated wastes into streams.

Par. 2
Duty to pay indemnities

(1) Water users discharging untreated or insufficiently treated wastes into streams are obliged to pay indemnities for discharging these wastes according to the quantity of discharged pollutants and their harmfulness. The duty to pay indemnities is not affected by the fact, that the water user has obtained the Water Authority's consent to discharge such wastes according to par 8 sub 1 b of the Water Act.

(2) Idemnities shall be paid by those water users, who discharge wastes containing suspended solids and organic matter characterized by biochemical oxygen demand *).

(3) The duty to pay indemnities does not concern water users who discharge wastes of the same as taken up quality, or if wastes are discharged into public sewers.

(4) The River Board may refrain from demanding the indemnity if the pollution does not exceed 50 tons BOD or 300 tons suspended solids per year.

(5) By paying the indemnity the water user is not rid of the liability for damage caused in respect of the Code of Economic and Civile Law; indemnities paid according to the present proclamation cannot be regarded as a part of recompensation paid for such damage.

(6) Payment of indemnities and rendered information concerning the quality and quantity of discharged pollutants (par. 6) cannot be regarded neither as a substitution of the Water Authority's permission granting water uptake and discharge, nor as an application for it.

Par. 3
The basic indemnity

(1) The basic indemnity is determined according to costs required by the specific or generaly practicable method of treatment.

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*) The biochemical oxygen demand (BOD) represents the amount of oxygen consumed for decomposition of organic putrescible substances present in the water sample during five days incubation.

(2) The basic indemnity is the product of the indemnity unit (par. 4) and the amount of pollutants per year.

(3) If there are at hand preliminary or design documentations of the treatment plant for the disposal of that pollution which has to be indemnified, these documentations shall be used with preference for the determination of the unit and basic indemnities. When determining the indemnities, the benefits achieved by operating the treatment plants, e. g. utilizing valuable substances from waste waters, shall not be taken in account.

(4) In such cases where an enterprise or sewer system has several outflows, the amounts of pollutants from the respective outlets are summed for the purpose of determining the unit and basic indemnities. They are taken separately only in such cases where technological reasons and possibilities to link them do not exist; for the determination of surtaxes (par. 5, chapt. 1) basic indemnities are added according to individual indicators.

(5) If the water user has facilities for accumulation and controlled discharge of polluted effluents, the indemnities shall be determined according to the discharged pollution per year, after subtracting pollutants contained in the accumulation plant. The subtracted amount, however, must not be greater than corresponding to water quality deterioration by 2.5 mg/l BOD if calculated for the annual average discharge of the receiving stream.

Par. 4
The indemnity units

(1) The indemnity units for the pollution indicators, BOD and suspended solids, are calculated as shown in the Appendix, part A.

(2) In such cases where the indemnity unit calculated according to the Appendix, Part A, item 2, does not reflect costs of an effective treatment of the respective wastes, the indemnity unit shall be determined by the use of technical and economical data as described in the Appendix, Part A, item 1. On demand, the water user is obliged to present to the River Board the necessary data and documents.

Par. 5
Surtax

(1) Over and above the basic indemnity (§ 3) a surtax will be set, the magnitude of which depends on the degree of water quality deterioration in the receiving stream. The method of calculation is given in the Appendix, Part B.

(2) The surtax to the basic indemnity shall be maximally 100 per cent of the basic indemnity.

(3) In justified cases the River Board may decrease the calculated surtax down to 10 per cent of the basic indemnity

Par. 6
Information concerning the amount of pollutants

(1) Water users are obliged to inform the River Board about the discharged pollutants, including:

a) the annual discharge of wastes and the rate of discharge in liters per second

b) the amount of BOD in mg/l, kg/day and tons/year

c) the amount of suspended solids in mg/l, kg/day and tons/year.

(2) Water users will further render information about discharging of wastes in the course of the day.

If preliminary or design documentations are at hand, from which the indemnity can be calculated (§ 3, item 3) this documentations shall be annexed to the information.

In determining the required data, analysis of a composite 8-hrs waste water sample, taken during the main shift is usually decisive. Water users may agree with the River Board on a different way to obtain the data. If several different results of analyses are available, their mean value shall be taken as a basis.

(3) The first date for presentation the information is June 30, 1966.

Par. 7
Determination of the magnitude of the indemnity

(1) The determinations of indemnities and any changes are carried out, for the coming year, before July 31. Request to alter the magnitude of the indemnity shall be delivered to the River Board not later than 40 days before this date. If a water user does not make a request of alteration within this term the preceding indemnity continues to apply. The River Board shall take a decision on such a request within 30 days. If no decision is given within this period, the data furnished by the water user shall be decisive.

(2) If water user does not present the data necessary for the determination of idemnities (§ 3, item 3, § 6), data available to the River Board will be applied.

(3) The River Board shall inform the water user about the time when the duty of paying an indemnity originates, its magnitude and the magnitude of monthly rates.

(4) In such cases where a substantial, not forseen changes in the discharged pollutants will take place, the River Board shall adjust the magnitude of the indemnity either by request of the water user or based on an inspection report, in a temporary or lasting manner. The request must be made within one month after the change of discharge amount of pollutants. Failure to present information on the magnitude of pollution shall be punished by a fine according to special regulations.

Payment of indemnities
Par. 8

(1) In the case of »economic« and »special budgetary« enterprises and organizations the basic indemnity is a part of their running costs.

(2) The surtax is paid by the »economic« organizations from the share of their gross income (profit), after their quota to the state budget has been delivered. With »special budgetary« organizations the surtax forms a part of unrealizable loss.

(3) The »budgetary« organizations pay the entire indemnity from the account »various financial costs«. The basic indemnity only is a part of budgetary expenditures. The surtax shall not be included in the budget and is paid from budgetary savings.

Par. 9.

(1) Indemnities according to this proclamation are paid to the River Board.

(2) Indemnities are payable each 25th day of the months, the sum paid monthly being one twelfth of the annual indemnity. The River Board may agree with the water user also a different schema of monthly rates. The payments transferred with delay or incomplete are liable to a penalty of 1 per thousand of the non-paid sum for every day of delay.

Par. 10
Special waste waters

The proclamation also relates to special waste waters (§ 13 of the Water Act 1955) discharged into streams, as far as the Central Water Authority decides otherwise in agreement the respective goverment bodies.

Par. 11
Streams under the administration of agricultural organizations

This proclamation also applies to the discharge of wastes into streams, which are administered by agricultural organizations. Exercise of rights and duties following from this proclamation belongs to the River Boards (§ 1).

Par. 12
Inspection

The correct application of this decree shall be subject to supervision by the State Water Pollution Inspection Board.

Par. 13
Final statements

(1) Water users are obliged to pay indemnities according this proclamation starting from January 1, 1967.

(2) This Decree shall be effective from April 1 1966.

APPENDIX

A. Method of calculation of indemnity units

Idemnity units are calculated from preliminary or desing documentations, or from general regresions.

1. **From a preliminary or design documentations or from other technical and economical documentations, as far as they are acceptable for indemnity determination, the indemnity unit for BOD is calculated as a ratio of total annual running costs of the devices removing organic matter characterized by BOD to total BOD removal per year. The indemnity unit is expressed in Kčs/kg BOD (Kčs — Czechosl. crown).**

   Analogically will be calculated the indemnity unit for suspended solids as a ratio of total annual running costs of the devices removing suspended solids from waste waters to total suspended solids removal per year. The indemnity unit is expressed in Kčs/ton suspended solids.

   For both indicators, indemnity units are calculated with an accuracy of three decimal places.

   In cases where the device serves to remove both the substances, organic matter characterized by BOD and suspended solids, the documentations used to calculate the indemnity must contain a subdivision of costs into the two parts.

2. A general calculation of indemnity units is based on the annual amount of pollutants, i. e. the amount of organic matter characterized by BOD and the amount of suspended solids, expressed in both cases in tons/year. Regresions of indemnity units and the amount of pollutants are as follows:

   a) for BOD the indemnity unit is equal to 5 — log x, where x is the amount of discharged organic matter, characterized by BOD, expressed in tons/year. The indemnity unit is expressed in Kčs/kg BOD;

   b) for suspended solids logarithm of indemnity unit is equal to 2.75 — 0,25 log y, where y is the amount of discharged suspended solids, expressed in tons/year. The indemnity unit is expressed in Kčs/ton suspended solids.

   The indemnity units are calculated with an accuracy of three decimal places.

   The basic indemnity for the respective indicator is calculated by multiplying the yearly amount of pollutants with the indemnity unit in both described methods of calculation (item 1 or 2).

B. Method of calculation of the surtax to the basic indemnity

The magnitude of the surtax to the basic indemnity depends on the degree of water quality deterioration in the stream, caused by the water user. The basic unit of deterioration is one twentieth of the difference of standards for water quality class IB and II (According to the Czechoslovak standards CSN 83 06 12 — »Appreciation of surface water quality and its classification«). The unit for BOD is 0,25 mg/l and for suspended solids 0,50 mg/l.

The amount of discharged pollutants and the flow in the stream guaranted for 355 days in an average year shall be taken in account when calculating the deterioration. The surtax to the basic indemnity makes than so many percent of the basic indemnity, how many times the unit of deterioration is contained in the calculated deterioration of the water quality in the stream. The number of percents of the surtax for the respective indicators is calculated and rounded off to next integer.

The resulting **surtax to the** basic indemnity in its pecuniary form in Kčs is the sum of surtaxes calculated according to both indicators, i. e. BOD and suspended solids.

Appendix N

Appendix to the state decree No. 40/1969/XI.25./,
Peoples' Republic of Hungary

Sorts and limits of harmful pollution and the amount of the charge

I.
Polluting Matters

No.	Sort of Pollution	limit mg/l	amount of charge Ft/kg
1.	COD /$K_2Cr_20_7$/	75	1.-
2.	Oils and fats /by organic solvent extract	10	20.-
3.	pH value *	under 6.5 - over 8.5	5.-
4.	Dissolved matter natural	2000	0.10
	technological	2000	1.-
5.	Sodium **	45 equivalent %	2.-
6.	Phenolic compounds	3	50.-
7.	Solid substances	1000	0.50
8.	Tar	2.5	120.-
9.	Ammonium ions	30	1.-
10.	Iron	5	5.-
11.	Manganese	2.5	20.-
12.	Surfactants /anionic /	5	60.-
13.	PO_4 ***	4	5.-
14.	NO_3 ***	20	1.-
15.	Sulphide /S^{-}/	5	100.-
16.	Chlorine /free /	2	50.-
17.	Fluoride	10	50.-

*Converted to adequate amount of NaOH or HCl

**The overstepped amount of 45 equivalent % in kg

*** Those components are to be taken into account in catchment areas of lakes and reservoirs.

II.
Toxic Matters

18.	Cyanide /free / *	0	5000.-
19.	Cyanide /total / **	10	50.-
20.	Copper	25	50.-
21.	Lead	10	100.-
22.	Chromium /hexavalent /	10	100.-
23.	Chromium /trivalent /	50	5.-
24.	Arsenic	5	200.-
25.	Cadmium	10	100.-
26.	Mercury	2	500.-
27.	Nickel	2	500.-
28.	Silver	0.1	1000.-
29.	Zinc	5	100.-
30	Tin	1	1000.-
31	Radioactivity	individually laid down	

* Free Cyanide distilled out of a medium 7 pH

** Total Cyanide distilled out of a medium 2 pH

APPENDIX O

EPA PARKING SURCHARGE PROPOSAL: MASSACHUSETTS[a]

(h) *Regulation for parking surcharge.* (1) For purposes of this paragraph, "off-street parking space" means any area or space below, above, or at ground level, open or enclosed, which is used for parking one light-duty vehicle at any given time.

(2) A surcharge of $5.00 per day vehicle in the Boston Intrastate Region, and of $4.00 per day per vehicle in the Interstate Region, shall be applied under conditions as provided in paragraph (h)(4) of this section to any contract or other agreement among private parties whereby parking a motor vehicle in an off-street parking space is permitted by any person in exchange for a consideration. Such surcharge shall be collected by the person providing the permission to park and paid to EPA, or any agency approved by EPA, on a periodic basis as EPA or the agency approved by it shall specify. EPA, or the agency approved by EPA, shall deduct such funds as necessary to properly administer and enforce the surcharge, and shall transfer the remainder to the Commonwealth of Massachusetts.

(3) A surcharge of $5.00 per day per vehicle in the Boston Intrastate Region, and of $4.00 per day per vehicle in the Interstate Region, shall be levied, under conditions as provided in paragraph (h)(4) of this section, for the use of any off-street parking space in any public parking facility owned, operated, or controlled by the Commonwealth of Massachusetts or the City of Boston or any agency, department, or commission of either. Such surcharge shall be collected by the Commonwealth of Massachusetts or the City of Boston or their designated agents, and such proceeds shall, after deduction of funds necessary to administer and enforce the collection of the surcharge, be utilized to fund mass transit facilities and service improvements.

(4) The surcharge provided for in paragraphs (h)(2) and (3) of this section, shall be applicable, beginning December 1, 1974, to all parking at Logan International Airport between the hours of 6 a.m. and 10 p.m.; to all parking arrangements within the Boston core area, as defined in paragraph (b) of this section wherein the motor vehicle is delivered for parking during the hours of 6 a.m. to 10 a.m.; and in the area bounded by the Connecticut River, Lyman Street, Maple Street, Washington Street, and Summer Avenue in the Interstate Region between 6 a.m. and 6 p.m. on a day other than Saturday, Sunday, or a legal holiday.

(5) Each owner or operator, whether a private person or a governmental entity, of an off-street parking facility located within the Boston Core Area, as defined in paragraph (b) of this section, at Logan International Airport, or within the Springfield downtown area as defined in paragraph (h)(4) of this section shall, by October 1, 1973, report to the Administrator the number of parking spaces in each such facility under his ownership or control.

(6) Each owner or operator of a parking facility subject to this paragraph shall submit an accounting of the number of parking spaces used during the hours the surcharge is in effect and the funds collected. This accounting shall be made on a quarterly basis, in such manner and form as the Administrator may subsequently provide for by regulation published in the FEDERAL REGISTER.

(7) The failure of any person to comply with any provision of this paragraph shall render such person in violation of a requirement of an applicable implementation plan, and subject to enforcement action under section 113 of the Clean Air Act.

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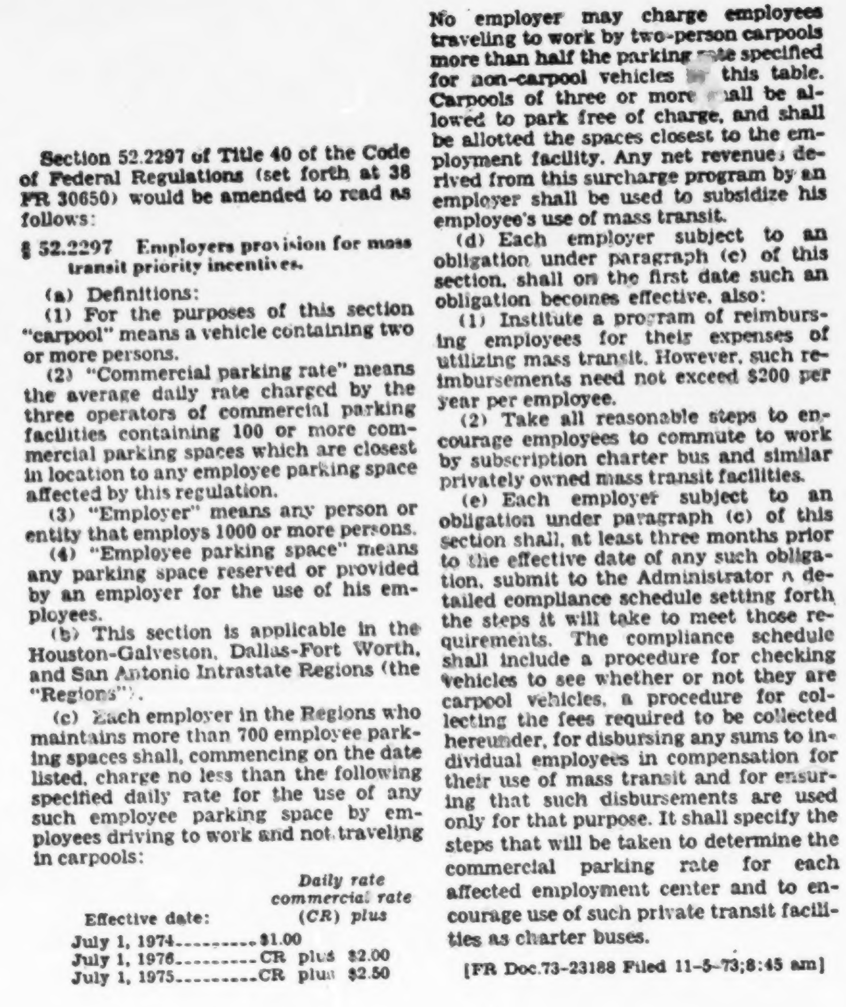
[a] 38 Fed. Reg. 17697 (July 2, 1973).

APPENDIX P

EPA PARKING SURCHARGE PROPOSAL: TEXAS[a]



Section 52.2297 of Title 40 of the Code of Federal Regulations (set forth at 38 FR 30650) would be amended to read as follows:

§ 52.2297 Employers provision for mass transit priority incentives.

(a) Definitions:

(1) For the purposes of this section "carpool" means a vehicle containing two or more persons.

(2) "Commercial parking rate" means the average daily rate charged by the three operators of commercial parking facilities containing 100 or more commercial parking spaces which are closest in location to any employee parking space affected by this regulation.

(3) "Employer" means any person or entity that employs 1000 or more persons.

(4) "Employee parking space" means any parking space reserved or provided by an employer for the use of his employees.

(b) This section is applicable in the Houston-Galveston, Dallas-Fort Worth, and San Antonio Intrastate Regions (the "Regions").

(c) Each employer in the Regions who maintains more than 700 employee parking spaces shall, commencing on the date listed, charge no less than the following specified daily rate for the use of any such employee parking space by employees driving to work and not traveling in carpools:

Effective date:	*Daily rate commercial rate (CR) plus*
July 1, 1974	$1.00
July 1, 1976	CR plus $2.00
July 1, 1975	CR plus $2.50

No employer may charge employees traveling to work by two-person carpools more than half the parking rate specified for non-carpool vehicles [illegible] this table. Carpools of three or more shall be allowed to park free of charge, and shall be allotted the spaces closest to the employment facility. Any net revenues derived from this surcharge program by an employer shall be used to subsidize his employee's use of mass transit.

(d) Each employer subject to an obligation under paragraph (c) of this section, shall on the first date such an obligation becomes effective, also:

(1) Institute a program of reimbursing employees for their expenses of utilizing mass transit. However, such reimbursements need not exceed $200 per year per employee.

(2) Take all reasonable steps to encourage employees to commute to work by subscription charter bus and similar privately owned mass transit facilities.

(e) Each employer subject to an obligation under paragraph (c) of this section shall, at least three months prior to the effective date of any such obligation, submit to the Administrator a detailed compliance schedule setting forth the steps it will take to meet those requirements. The compliance schedule shall include a procedure for checking vehicles to see whether or not they are carpool vehicles, a procedure for collecting the fees required to be collected hereunder, for disbursing any sums to individual employees in compensation for their use of mass transit and for ensuring that such disbursements are used only for that purpose. It shall specify the steps that will be taken to determine the commercial parking rate for each affected employment center and to encourage use of such private transit facilities as charter buses.

[FR Doc.73-23188 Filed 11-5-73;8:45 am]

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[a] 38 Fed. Reg. 30651 (November 6, 1973).